Draft Environmental Impact Statement

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STATE OF HAWAII
LAND USE COMMISSION

Ho‘onani Village Mixed-Use Development

Volume II of III

Appendices H-P

Prepared for:
Ho‘onani Development, LLC.

Accepting Authority:
State of Hawai‘i Land Use Commission

March 2026

Prepared by:
Pioneer Design Group – Hawai‘i, LLC.

PIONEER DESIGN GROUP-HAWAI‘I

Land Use Planning • Civil Engineering • Construction Management
711 Kapiolani Blvd., Suite 1450 • Honolulu, Hawaii 96813 • 808.400.5959
www.pdg-hawaii.com

APPENDIX ‘H’ – BILLS 163, 164, & 165

ORDINANCE NO. _____

BILL NO. 163 (2025)

A BILL FOR AN ORDINANCE TO AMEND THE MAUI ISLAND PLAN'S DIRECTED GROWTH MAP C5 (PULEHU ROAD) BY INCLUDING WITHIN THE URBAN GROWTH BOUNDARY, A 166.511-ACRE PORTION OF A PARCEL IDENTIFIED FOR REAL PROPERTY TAX PURPOSES AS TAX MAP KEY (2) 3-8-006:004-0005, KAHULUI, HAWAIʻI

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. By Resolution 25-132, FD1, adopted on June 6, 2025, the Council referred a proposed bill to amend the Maui Island Plan's Directed Growth Map C5 (Pulehu Road) for a 166.511-acre portion of a parcel identified for Real Property Tax purposes as Tax Map Key (2) 3-8-006:004-0005, Kahului, Hawaiʻi.

Section 8-8.6(2), Revised Charter of the County of Maui (1983), as amended, provides a 120-day period after receipt of the referral within which the planning commission must make its report. By County Communication 192-25, dated September 29, 2025, the Planning Director advised the Council that the Maui Planning Commission cannot provide a recommendation within that timeframe. Under the Charter, the Council may pass the bill without the planning commission's review and report by an affirmative vote of at least two thirds of the Council's entire membership.

SECTION 2. Under Chapter 2.80B, Maui County Code, the Maui Island Plan's Directed Growth Map C5 (Pulehu Road) is amended to include within the Urban Growth Boundary, a 166.511-acre portion of a parcel identified for Real

Property Tax purposes as Tax Map Key (2) 3-8-006:004-0005, situated at Kahului, Hawai'i, as described and depicted in the attached Exhibit "A."

SECTION 3. This Ordinance takes effect on approval.

APPROVED AS TO FORM AND LEGALITY:

_____

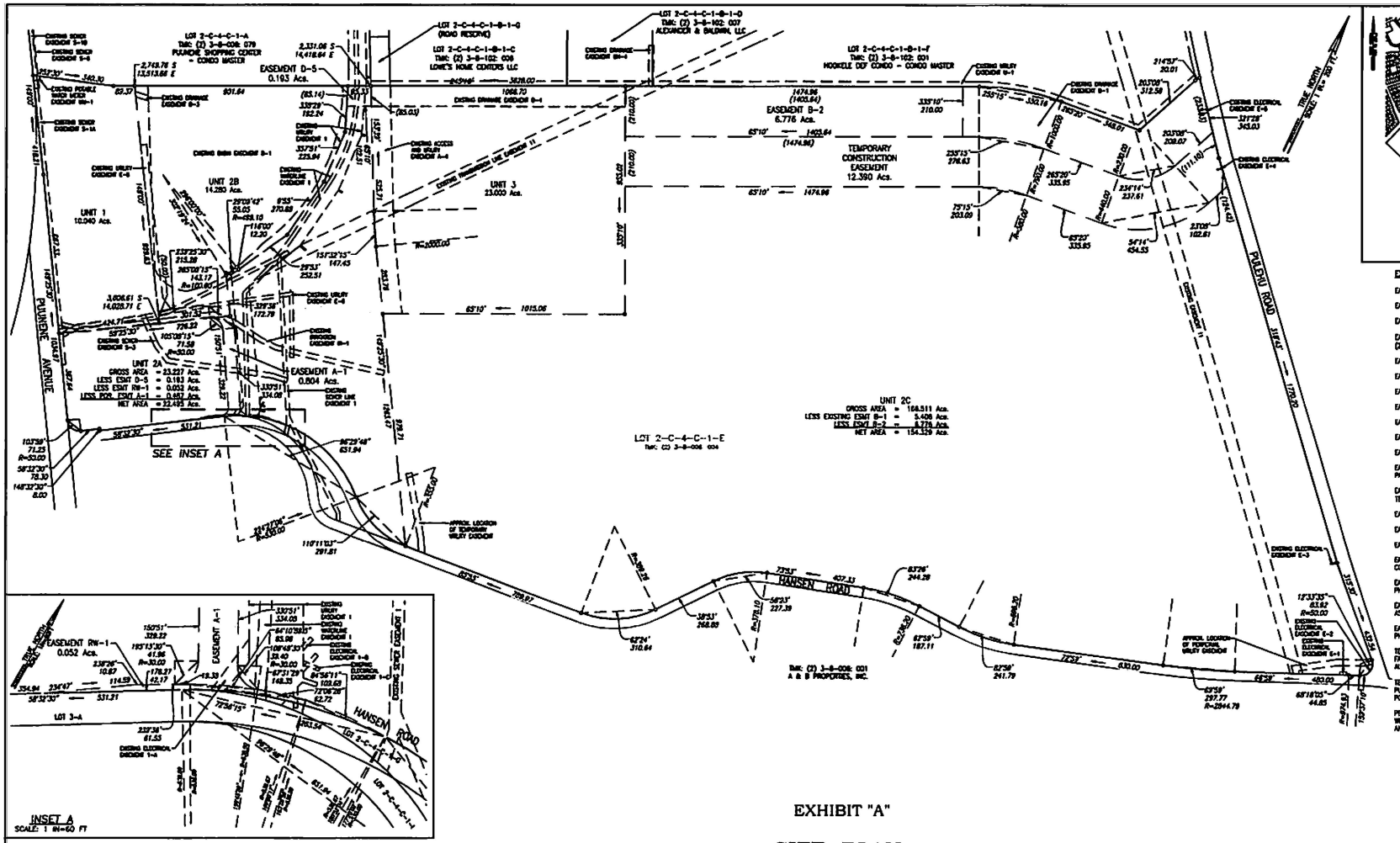
Department of the Corporation Counsel
County of Maui

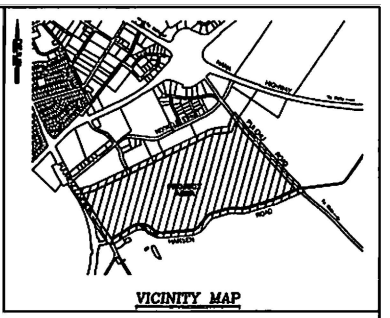
paf:jpp:25-143i

INTRODUCED BY:

Nohelani Uu-Hodgins

NOHELANI U'U-HODGINS





EXISTING EASEMENTS:

EASEMENT 1 FOR UTILITY PURPOSES IN FAVOR OF MAUI ELECTRIC CO., LTD. (MECO).

EASEMENT 1 FOR WATER PIPELINE PURPOSES IN FAVOR OF COUNTY OF MAUI.

EASEMENT 11 FOR ELECTRICAL TRANSMISSION LINE PURPOSES IN FAVOR OF MECO.

EASEMENT 1 (15-FT. WIDE) FOR SEWER LINE PURPOSES IN FAVOR OF "PARCEL 1" (TMK: (2) 3-8-006: 001).

EASEMENT FOR UTILITY PURPOSES IN FAVOR OF MECO.

EASEMENTS E-1 TO E-5, INCLUSIVE, FOR ELECTRICAL PURPOSES IN FAVOR OF MECO.

EASEMENT IR-1 FOR IRRIGATION PURPOSES IN FAVOR OF ALEXANDER & BALDWIN, LLC.

EASEMENT S-1A FOR SEWER PURPOSES IN FAVOR OF ALEXANDER & BALDWIN, LLC.

EASEMENT S-1B FOR SEWER PURPOSES IN FAVOR OF ALEXANDER & BALDWIN, LLC.

EASEMENT S-6 FOR SEWER PURPOSES IN FAVOR OF MAUI ECONOMIC OPPORTUNITY, INC.

EASEMENT S-3 FOR SEWER PURPOSES IN FAVOR OF ALEXANDER & BALDWIN, LLC.

EASEMENT WM-1 FOR POTABLE WATER METER PURPOSES IN FAVOR OF MAUI BUSINESS PARK PHASE II ASSOCIATION.

EASEMENTS E-6 AND E-8 FOR UTILITY PURPOSES IN FAVOR OF MECO AND HAWAIIAN TELCOM, INC. (HT).

EASEMENT D-1 FOR DRAINAGE BASIN PURPOSES IN FAVOR OF UNIT 1.

EASEMENT D-3 FOR DRAINAGE PURPOSES IN FAVOR OF UNIT 1.

EASEMENTS 1-A, 1-B, AND 1-C FOR ELECTRICAL PURPOSES IN FAVOR OF MECO.

EASEMENT B-1 FOR DRAINAGE PURPOSES IN FAVOR OF PARCEL 19 OF HOOKELE DEF CONDOMINIUM SUBDIVISION.

EASEMENT A-4 FOR ACCESS AND UTILITY PURPOSES IN FAVOR OF MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN ITS SUCCESSORS AND ASSIGNS.

EASEMENT D-4 FOR DRAINAGE PURPOSES IN FAVOR OF MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN ITS SUCCESSORS AND ASSIGNS.

EASEMENT B-2 FOR DRAINAGE PURPOSES IN FAVOR OF UNIT 2B, MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN ITS SUCCESSORS AND ASSIGNS.

TEMPORARY CONSTRUCTION EASEMENT FOR TEMPORARY CONSTRUCTION PURPOSES IN FAVOR OF COUNTY OF MAUI, MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN ITS SUCCESSORS AND ASSIGNS.

TEMPORARY UTILITY EASEMENT UP TO THREE (3) YEARS FOR ELECTRICAL AND ACCESS PURPOSES. THE EASEMENT WILL EXTEND 12.5 FEET TO EITHER SIDE OF THE EXISTING POWER LINE AND WILL INCLUDE AN ACCESS ROAD.

PERPETUAL UTILITY EASEMENT FOR ELECTRICAL AND ACCESS PURPOSES. THE EASEMENT WILL EXTEND 12.5 FEET TO EITHER SIDE OF THE EXISTING POWER LINE AND WILL INCLUDE AN ACCESS ROAD.

NOTES:

1. AZIMUTHS AND COORDINATES REFERRED TO GOVERNMENT SURVEY TRIANGULATION STATION "LUKE".
2. THE DASHED LINES DELINEATE THE AREA FOR EACH UNIT AND IS NOT INTENDED TO REPRESENT A LEGALLY SUBDIVIDED LOT.
3. OWNERS OF ADJOINING PARCELS TAKEN FROM RECORDS OF THE REAL PROPERTY MAPPING BRANCH.
4. EASEMENT A-1 (50-FT. WIDE) IS FOR ACCESS PURPOSES IN FAVOR OF UNIT 1 AND UNIT 2B.
5. EASEMENT A-4 IS FOR ACCESS AND UTILITY PURPOSES IN FAVOR OF UNIT 2B AND 2C.
6. EASEMENT UNIT 2A SURFACE WATER – UNIT 2A SHALL HAVE AN EASEMENT FOR FLOW AND DISCHARGE OF SURFACE WATER OVER UNIT 2B AS DESCRIBED IN THE DECLARATION.
7. EASEMENT D-5 (85-FT. WIDE) IS FOR DRAINAGE AND ACCESS PURPOSES IN FAVOR OF UNIT 2B, MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN, LLC, ITS SUCCESSORS AND ASSIGNS.
8. EASEMENT RW-1 IS FOR ACCESS AND ROAD WIDENING PURPOSES IN FAVOR OF UNIT 1 AND UNIT 2B.
9. EASEMENT D-4 IS FOR DRAINAGE PURPOSES IN FAVOR OF UNIT 2B.

EXHIBIT "A"

SITE PLAN
MAUI ECONOMIC OPPORTUNITY CONDOMINIUM
LOT 2-C-4-C-1-E OF THE FIRST ASSEMBLY OF GOD SUBDIVISION
TAX MAP KEY: (2) 3-8-006: 004
BEING A PORTION OF GRANT 3343 TO CLAUS SPRECKELS
AT PUUNENE, WAILUKU, MAUI, HAWAII

CONDOMINIUM MAP NO. 5149

Owner: Alexander & Baldwin, LLC.

Address: P.O. Box 156
Kahului, HI 96733

GRAPHIC SCALE
(IN FEET)
1 inch = 200 ft.

LICENSED PROFESSIONAL LAND SURVEYOR No. 9826 HAWAII, U.S.A.

AUSTIN, TSUTSUMI & ASSOCIATES INC.
501 SUMNER STREET, SUITE 521
HONOLULU, HI 96817

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE No. 9826
EXP. 04/24

MARCH 20, 2023

SHEET 1

24" X 36" – 6.0 SQ. FT.

Y:\2022\22-530 Maui Business Park DEF Subdiv\SURVEY\DWG\AMENDED MEO CPR 2023-03-20.dwg

AUSTIN, TSUTSUMI & ASSOCIATES, INC. CIVIL ENGINEERS • SURVEYORS
501 SUMNER STREET, SUITE 521 • HONOLULU, HAWAII 96817

MAUI ECONOMIC OPPORTUNITY CONDOMINIUM

UNIT 2C

Being a portion of Lot 2-C-4-C-1-E of The First Assembly of God Subdivision (Subdivision File No. 3.2208), being also a portion of Grant 3343 to Claus Spreckels.

Situate at Puunene, Wailuku, Maui, Hawaii.

Beginning at the Northwest corner of the parcel of land, being also the Northeast corner of Unit 1 of Maui Economic Opportunity Condominium, the coordinates of said point of beginning referred to Government Survey Triangulation Station "LUKE" being 4,019.58 feet South and 15,364.93 feet East thence running by azimuths measured clockwise from true South:

1.	149°	25′	30″	979.71 feet	along Unit 2A of Maui Economic Opportunity Condominium, also along the remainder of Grant 3343 to Claus Spreckels;
2.	245°	10′		1015.06 feet	along Unit 3 of Maui Economic Opportunity Condominium, also along the remainder of Grant 3343 to Claus Spreckels;
3.	155°	10′		955.02 feet	along same;
4.	245°	10′		1474.96 feet	along Lots 2-C-4-C-1-B-1-D and 2-C-4-C-1-B-1-F of The First Assembly of God Subdivision, also along the remainder of Grant 3343 to Claus Spreckels;
					Thence along Lot 2-C-4-C-1-B-1-F of The First Assembly of God Subdivision, also along the remainder of Grant 3343 to Claus Spreckels, on a curve to the right with a radius of 1000 feet, the chord azimuth and distance being:
5.	255°	15′		350.16 feet;	
6.	265°	20′		348.01 feet	along same;

7.	203°	08′		312.58 feet	along same;
8.	214°	57′		20.01 feet	along same;
9.	321°	28′		345.03 feet	along Pulehu Road;
10.	318°	43′		1770.20 feet	along same;
11.	315°	30′		432.54 feet	along same;
					Thence along same, on a curve to the right with a radius of 50.00 feet, the chord azimuth and distance being:
12.	12°	33′	35″	83.92 feet;	
					Thence along Hansen Road, on a curve to the left with a radius of 974.93 feet, the chord azimuth and distance being:
13.	68°	18′	05″	44.85 feet;	
14.	66°	59′		480.00 feet	along same;
					Thence along same, on a curve to the right with a radius of 2844.79, the chord azimuth and distance being:
15.	69°	59′		297.77 feet;	
16.	72°	59′		630.00 feet	along same;
					Thence along same, on a curve to the right with a radius of 696.20 feet, the chord azimuth and distance being:
17.	82°	59′		241.79 feet;	
18.	92°	59′		187.11 feet	along same;
					Thence along same, on a curve to the left with a radius of 736.20 feet, the chord azimuth and distance being:

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS
501 SUMNER STREET, SUITE 521
HONOLULU, HAWAII 96817-5031
1871 WILI PA LOOP, SUITE A
WAILUKU, MAUI, HAWAII 96793
100 PAUAHI STREET, SUITE 213
HILO, HAWAII 96720

19.	83°	26′	244.28 feet;	
20.	73°	53′	407.33 feet	along same;
				Thence along same, on a curve to the left with a radius of 378.10 feet, the chord azimuth and distance being:
21.	56°	23′	227.39 feet;	
22.	38°	53′	268.88 feet	along same;
				Thence along same, on a curve to the right with a radius of 389.26 feet, the chord azimuth and distance being:
23.	62°	24′	310.64 feet;	
24.	85°	55′	789.97 feet	along same, to the point of beginning and containing an area of 166.511 Acres.

Description Prepared By:

AUSTIN, TSUTSUMI & ASSOCIATES, INC.

ERIK S. KANESHIRO
Licensed Professional Land Surveyor
Certificate No. 9826
Exp. 04/26

Honolulu, Hawaii
December 18, 2024

TMK: (2) 3-8-006: POR. 004
Y:\2022\22-530 Maui Business Park DEF Subdiv\SURVEY\Descriptions\MEO CPR UNIT 2C.docx

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
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1671 WILI PA LOOP, SUITE A
WAILUKU, MAUI, HAWAII 96793
100 PAUAHI STREET, SUITE 213
HILO, HAWAII 96720

ORDINANCE NO. _____

BILL NO. 164 (2025)

A BILL FOR AN ORDINANCE TO AMEND THE WAILUKU-KAHULUI COMMUNITY PLAN DESIGNATION FROM AGRICULTURE TO BUSINESS/MULTI-FAMILY FOR A 166.511-ACRE PORTION OF A PARCEL IDENTIFIED FOR REAL PROPERTY TAX PURPOSES AS TAX MAP KEY (2) 3-8-006:004-0005, SITUATED AT KAHULUI, HAWAI'I

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. By Resolution 25-132, FD1, adopted on June 6, 2025, the Council referred a proposed bill to amend the Wailuku-Kahului Community Plan designation from Agriculture to Business/Multi-Family for a 166.511-acre portion of a parcel identified for Real Property Tax purposes as Tax Map Key (2) 3-8-006:004-0005, Kahului, Hawai'i.

Section 8-8.6(2), Revised Charter of the County of Maui (1983), as amended, provides a 120-day period after receipt of the referral within which the planning commission must make its report. By County Communication 192-25, dated September 29, 2025, the Planning Director advised the Council that the Maui Planning Commission cannot provide a recommendation within that timeframe. Under the Charter, the Council may pass the bill without the planning commission's review and report by an affirmative vote of at least two thirds of the Council's entire membership.

SECTION 2. Under Chapter 2.80B, Maui County Code, the Wailuku-Kahului Community Plan designation is amended from Agriculture to

Business/Multi-Family for a 166.511-acre portion of a parcel identified for Real Property Tax purposes as Tax Map Key (2) 3-8-006:004-0005, situated at Kahului, Hawai'i, as described and depicted in the attached Exhibit "A."

SECTION 3. This Ordinance takes effect on approval.

APPROVED AS TO FORM AND LEGALITY:

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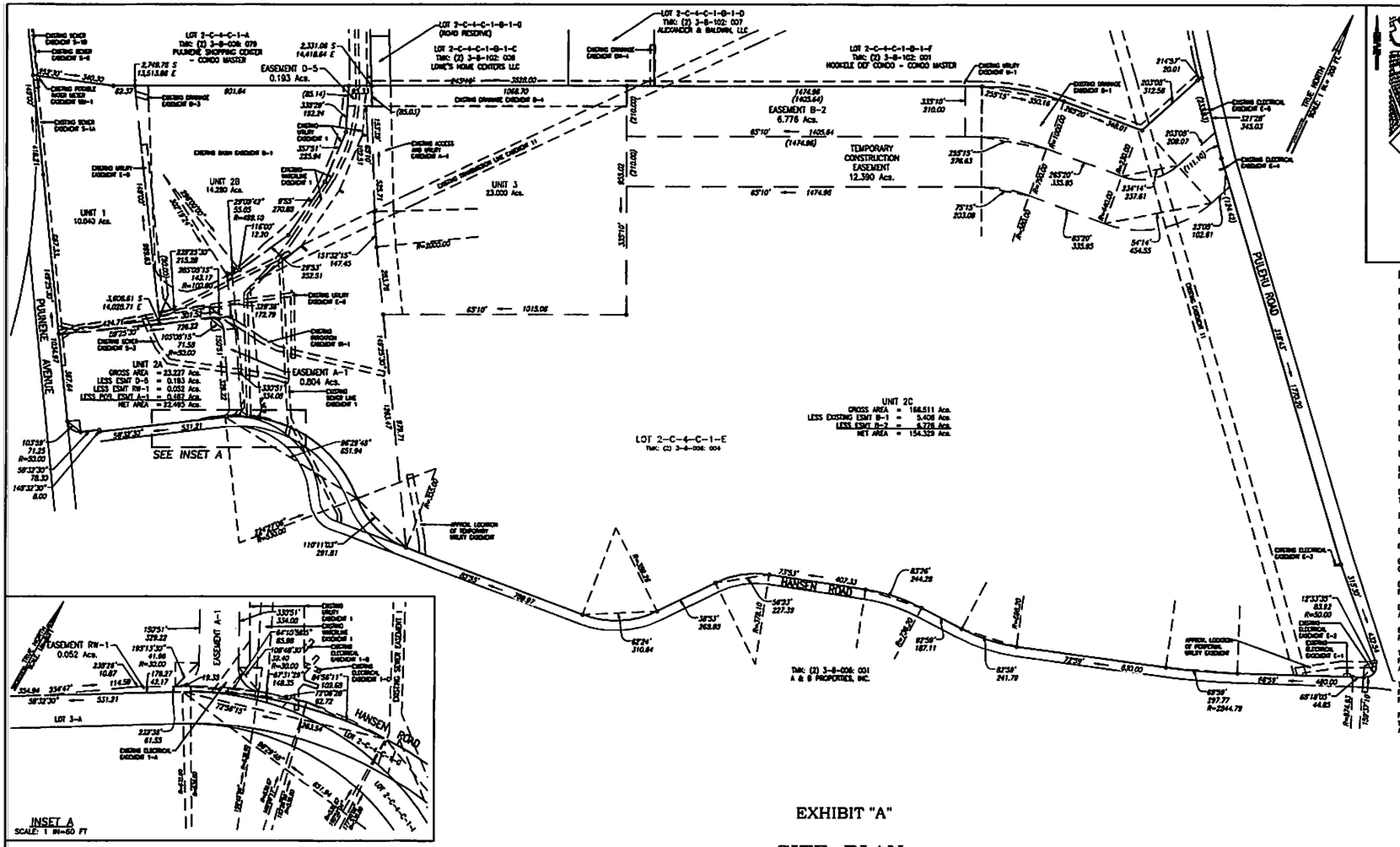
Department of the Corporation Counsel
County of Maui

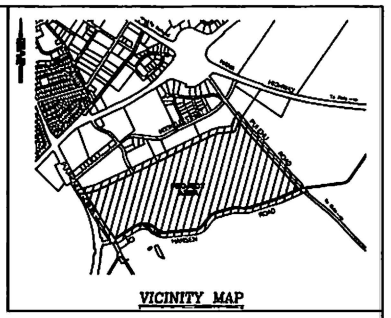
paf:jpp:25-143j

INTRODUCED BY:

Nohelani Uu-Hodgins

NOHELANI U'U-HODGINS





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4. EASEMENT A-1 (50-FT. WIDE) IS FOR ACCESS PURPOSES IN FAVOR OF UNIT 1 AND UNIT 2B.
5. EASEMENT A-4 IS FOR ACCESS AND UTILITY PURPOSES IN FAVOR OF UNIT 2B AND 2C.
6. EASEMENT UNIT 2A SURFACE WATER - UNIT 2A SHALL HAVE AN EASEMENT FOR FLOW AND DISCHARGE OF SURFACE WATER OVER UNIT 2B AS DESCRIBED IN THE DECLARATION.
7. EASEMENT D-3 (85-FT. WIDE) IS FOR DRAINAGE AND ACCESS PURPOSES IN FAVOR OF UNIT 2B, MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN, LLC, ITS SUCCESSORS AND ASSIGNS.
8. EASEMENT RW-1 IS FOR ACCESS AND ROAD WIDENING PURPOSES IN FAVOR OF UNIT 1 AND UNIT 2B.
9. EASEMENT D-4 IS FOR DRAINAGE PURPOSES IN FAVOR OF UNIT 2B.

EXHIBIT "A"

SITE PLAN
MAUI ECONOMIC OPPORTUNITY CONDOMINIUM

LOT 2-C-4-C-1-E OF THE FIRST ASSEMBLY OF GOD SUBDIVISION
TAX MAP KEY: (2) 3-8-006: 004
BEING A PORTION OF GRANT 3343 TO CLAUS SPRECKELS
AT PUUNENE, WAILUKU, MAUI, HAWAII

CONDOMINIUM MAP NO. 5149

Owner: Alexander & Baldwin, LLC.

Address: P.O. Box 156
Kahului, HI 96733

GRAPHIC SCALE
(IN FEET)
1 inch = 200 ft.

ERIC S. KANESHIRO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 9625
HAWAII, U.S.A.

AUSTIN, TSUTSUMI, & ASSOCIATES INC.
501 SUMNER STREET, SUITE 521
HONOLULU, HI 96817

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE No. 9625
EXP. 04/24

MARCH 20, 2023

SHEET 1

24" X 36" - 6.0 SQ. FT.

Y:\2022\22-530 Maui Business Park DCF Subdiv\SURVEY\DWG\AMENDED MEO CPR 2023-03-20.dwg

AUSTIN, TSUTSUMI & ASSOCIATES, INC. CIVIL ENGINEERS • SURVEYORS
501 SUMNER STREET, SUITE 521 • HONOLULU, HAWAII 96817

MAUI ECONOMIC OPPORTUNITY CONDOMINIUM

UNIT 2C

Being a portion of Lot 2-C-4-C-1-E of The First Assembly of God Subdivision (Subdivision File No. 3.2208), being also a portion of Grant 3343 to Claus Spreckels.

Situate at Puunene, Wailuku, Maui, Hawaii.

Beginning at the Northwest corner of the parcel of land, being also the Northeast corner of Unit 1 of Maui Economic Opportunity Condominium, the coordinates of said point of beginning referred to Government Survey Triangulation Station "LUKE" being 4,019.58 feet South and 15,364.93 feet East thence running by azimuths measured clockwise from true South:

1.	149°	25′	30″	979.71 feet	along Unit 2A of Maui Economic Opportunity Condominium, also along the remainder of Grant 3343 to Claus Spreckels;
2.	245°	10′		1015.06 feet	along Unit 3 of Maui Economic Opportunity Condominium, also along the remainder of Grant 3343 to Claus Spreckels;
3.	155°	10′		955.02 feet	along same;
4.	245°	10′		1474.96 feet	along Lots 2-C-4-C-1-B-1-D and 2-C-4-C-1-B-1-F of The First Assembly of God Subdivision, also along the remainder of Grant 3343 to Claus Spreckels;
					Thence along Lot 2-C-4-C-1-B-1-F of The First Assembly of God Subdivision, also along the remainder of Grant 3343 to Claus Spreckels, on a curve to the right with a radius of 1000 feet, the chord azimuth and distance being:
5.	255°	15′		350.16 feet;	
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19.	83°	26′	244.28 feet;	
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24.	85°	55′	789.97 feet	along same, to the point of beginning and containing an area of 166.511 Acres.

ERIK S. KANESHIRO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 9826
HAWAII, U.S.A.

Description Prepared By:

AUSTIN, TSUTSUMI & ASSOCIATES, INC.

ERIK S. KANESHIRO
Licensed Professional Land Surveyor
Certificate No. 9826
Exp. 04/26

Honolulu, Hawaii
December 18, 2024

TMK: (2) 3-8-006: POR. 004
Y:\2022\22-530 Maui Business Park DEF Subdiv\SURVEY\Descriptions\MEO CPR UNIT 2C.docx

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WAILUKU, MAUI, HAWAII 96793
100 PAUAHI STREET, SUITE 213
HILO, HAWAII 96720

ORDINANCE NO. _____

BILL NO. 165 (2025)

A BILL FOR AN ORDINANCE TO CHANGE THE ZONING FROM AGRICULTURAL DISTRICT TO M-1 LIGHT INDUSTRIAL DISTRICT FOR A 166.511-ACRE PORTION OF A PARCEL IDENTIFIED FOR REAL PROPERTY TAX PURPOSES AS TAX MAP KEY (2) 3-8-006:004-0005, SITUATED AT KAHULUI, HAWAIʻI

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. By Resolution 25-132, FD1, adopted on June 6, 2025, the Council referred a proposed bill to change the zoning from Agricultural District to M-1 Light Industrial District for a 166.511-acre portion of a parcel identified for Real Property Tax purposes as Tax Map Key (2) 3-8-006:004-0005, Kahului, Hawaiʻi.

Section 8-8.6(2), Revised Charter of the County of Maui (1983), as amended, provides a 120-day period after receipt of the referral within which the planning commission must make its report. By County Communication 192-25, dated September 29, 2025, the Planning Director advised the Council that the Maui Planning Commission cannot provide a recommendation within that timeframe. Under the Charter, the Council may pass the bill without the planning commission's review and report by an affirmative vote of at least two thirds of the Council's entire membership.

SECTION 2. Under Chapters 19.24 and 19.510, Maui County Code, a Change in Zoning from Agricultural District to M-1 Light Industrial District is

granted for a 166.511-acre portion of a parcel identified for Real Property Tax purposes as Tax Map Key (2) 3-8-006:004-0005, situated at Kahului, Hawai'i, as described and depicted in the attached Exhibit "A."

SECTION 3. This Ordinance takes effect on approval.

APPROVED AS TO FORM AND LEGALITY:

_____

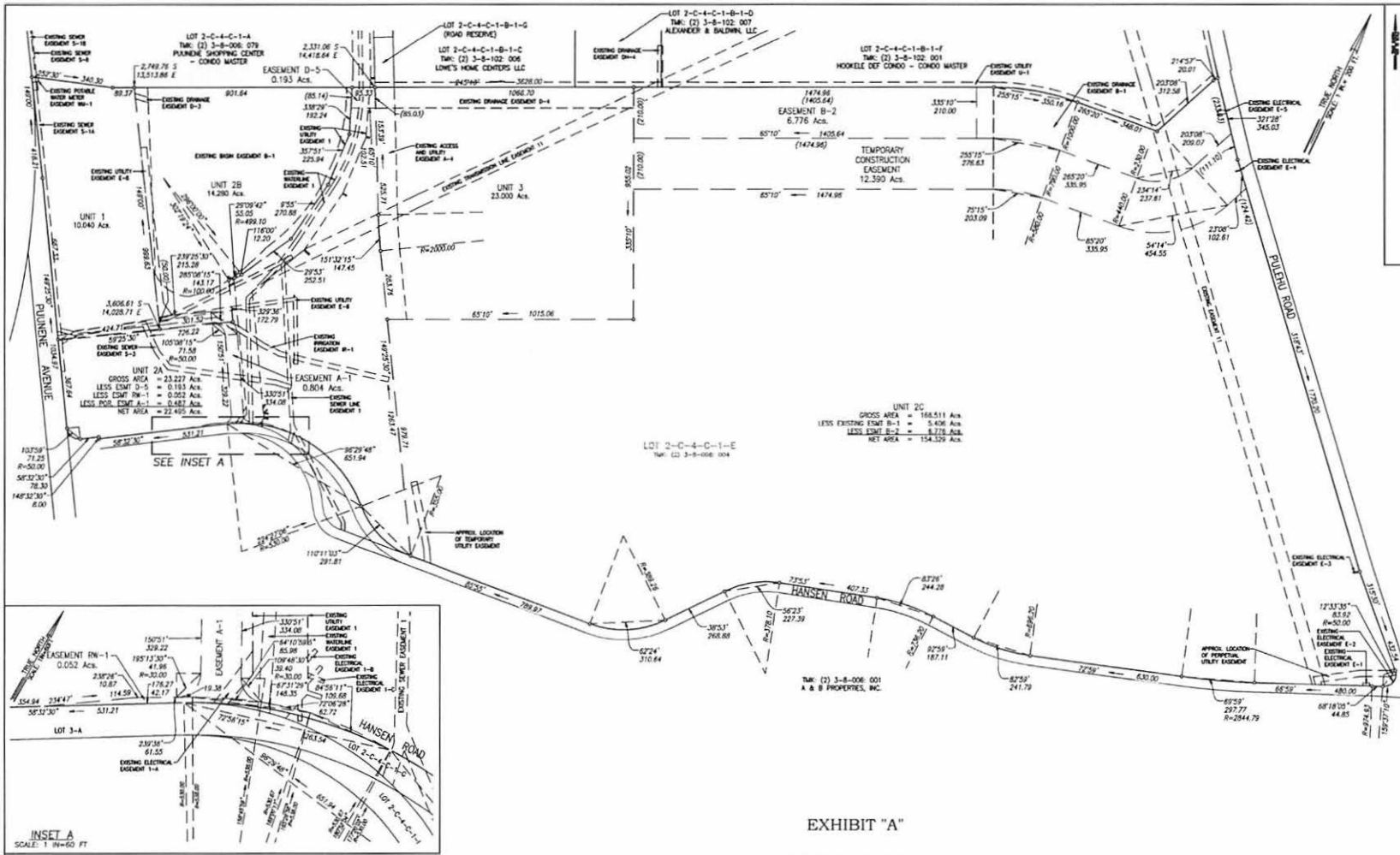
Department of the Corporation Counsel
County of Maui

paf:jpp:25-143k

INTRODUCED BY:

Nohelani U'u-Hodgins

NOHELANI U'U-HODGINS



INSET A
SCALE: 1 IN=60 FT

VICINITY MAP

EXISTING EASEMENTS:

EASEMENT 1 FOR UTILITY PURPOSES IN FAVOR OF MAUI ELECTRIC CO., LTD. (MECO).

EASEMENT 1 FOR WATER PIPELINE PURPOSES IN FAVOR OF COUNTY OF MAUI.

EASEMENT 11 FOR ELECTRICAL TRANSMISSION LINE PURPOSES IN FAVOR OF MECO.

EASEMENT 1 (15-FT. WIDE) FOR SEWER LINE PURPOSES IN FAVOR OF "PARCEL 1" (TMK: (2) 3-8-006: 001).

EASEMENT FOR UTILITY PURPOSES IN FAVOR OF MECO.

EASEMENTS E-1 TO E-5, INCLUSIVE, FOR ELECTRICAL PURPOSES IN FAVOR OF MECO.

EASEMENT IR-1 FOR IRRIGATION PURPOSES IN FAVOR OF ALEXANDER & BALDWIN, LLC.

EASEMENT S-1A FOR SEWER PURPOSES IN FAVOR OF ALEXANDER & BALDWIN, LLC.

EASEMENT S-1B FOR SEWER PURPOSES IN FAVOR OF ALEXANDER & BALDWIN, LLC.

EASEMENT S-6 FOR SEWER PURPOSES IN FAVOR OF MAUI ECONOMIC OPPORTUNITY, INC.

EASEMENT S-3 FOR SEWER PURPOSES IN FAVOR OF ALEXANDER & BALDWIN, LLC.

EASEMENT WW-1 FOR POTABLE WATER METER PURPOSES IN FAVOR OF MAUI BUSINESS PARK PHASE II ASSOCIATION.

EASEMENTS E-6 AND E-8 FOR UTILITY PURPOSES IN FAVOR OF MECO AND HAWAIIAN TELCOM, INC. (HT).

EASEMENT B-1 FOR DRAINAGE BASIN PURPOSES IN FAVOR OF UNIT 1.

EASEMENT D-3 FOR DRAINAGE PURPOSES IN FAVOR OF UNIT 1.

EASEMENTS 1-A, 1-B, AND 1-C FOR ELECTRICAL PURPOSES IN FAVOR OF MECO.

EASEMENT B-1 FOR DRAINAGE PURPOSES IN FAVOR OF PARCEL 19 OF HOOKIELE DEF CONDOMINIUM SUBDIVISION.

EASEMENT A-4 FOR ACCESS AND UTILITY PURPOSES IN FAVOR OF MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN ITS SUCCESSORS AND ASSIGNS.

EASEMENT D-4 FOR DRAINAGE PURPOSES IN FAVOR OF MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN ITS SUCCESSORS AND ASSIGNS.

EASEMENT B-2 FOR DRAINAGE PURPOSES IN FAVOR OF UNIT 2B, MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN ITS SUCCESSORS AND ASSIGNS.

TEMPORARY CONSTRUCTION EASEMENT FOR TEMPORARY CONSTRUCTION PURPOSES IN FAVOR OF COUNTY OF MAUI, MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN ITS SUCCESSORS AND ASSIGNS.

TEMPORARY UTILITY EASEMENT UP TO THREE (3) YEARS FOR ELECTRICAL AND ACCESS PURPOSES. THE EASEMENT WILL EXTEND 12.5 FEET TO EITHER SIDE OF THE EXISTING POWER LINE AND WILL INCLUDE AN ACCESS ROAD.

PERPETUAL UTILITY EASEMENT FOR ELECTRICAL AND ACCESS PURPOSES. THE EASEMENT WILL EXTEND 12.5 FEET TO EITHER SIDE OF THE EXISTING POWER LINE AND WILL INCLUDE AN ACCESS ROAD.

NOTES:

1. AZIMUTHS AND COORDINATES REFERRED TO GOVERNMENT SURVEY TRIANGULATION STATION "LUKE" ⚠.
2. THE DASHED LINES DELINEATE THE AREA FOR EACH UNIT AND IS NOT INTENDED TO REPRESENT A LEGALLY SUBDIVIDED LOT.
3. OWNERS OF ADJOINING PARCELS TAKEN FROM RECORDS OF THE REAL PROPERTY MAPPING BRANCH.
4. EASEMENT A-1 (50-FT. WIDE) IS FOR ACCESS PURPOSES IN FAVOR OF UNIT 1 AND UNIT 2B.
5. EASEMENT A-4 IS FOR ACCESS AND UTILITY PURPOSES IN FAVOR OF UNIT 2B AND 2C.
6. EASEMENT UNIT 2A SURFACE WATER – UNIT 2A SHALL HAVE AN EASEMENT FOR FLOW AND DISCHARGE OF SURFACE WATER OVER UNIT 2B AS DESCRIBED IN THE DECLARATION.
7. EASEMENT D-5 (85-FT. WIDE) IS FOR DRAINAGE AND ACCESS PURPOSES IN FAVOR OF UNIT 2B, MAUI BUSINESS PARK PHASE II ASSOCIATION, AND ALEXANDER & BALDWIN, LLC, ITS SUCCESSORS AND ASSIGNS.
8. EASEMENT RW-1 IS FOR ACCESS AND ROAD WIDENING PURPOSES IN FAVOR OF UNIT 1 AND UNIT 2B.
9. EASEMENT D-4 IS FOR DRAINAGE PURPOSES IN FAVOR OF UNIT 2B.

EXHIBIT "A"

SITE PLAN
MAUI ECONOMIC OPPORTUNITY CONDOMINIUM

LOT 2-C-4-C-1-E OF THE FIRST ASSEMBLY OF GOD SUBDIVISION
TAX MAP KEY: (2) 3-8-006: 004
BEING A PORTION OF GRANT 3343 TO CLAUS SPRECKELS
AT PUUNENE, WAILUKU, MAUI, HAWAII

CONDOMINIUM MAP NO. 5149

Owner: Alexander & Baldwin, LLC.

Address: P.O. Box 156
Kahului, HI 96733

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

ERIC B. KANESHIRO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 9826
HAWAII, U.S.A.

AUSTIN, TSUTSUMI, & ASSOCIATES INC.
501 SUMMER STREET, SUITE 521
HONOLULU, HI 96817

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE No. 9826
EXP. 04/24

MARCH 20, 2023

SHEET 1

Y:\2022\22-530 Maui Business Park DEF Subdiv\SURVEY\DWG\AMENDED MEO CPR 2023-03-20.dwg

AUSTIN, TSUTSUMI & ASSOCIATES, INC. CIVIL ENGINEERS • SURVEYORS
1371 WILI PA LOOP SUITE A • WAILUKU, MAUI, HAWAII 96793

24" X 36" = 6.0 SQ. FT.

MAUI ECONOMIC OPPORTUNITY CONDOMINIUM

UNIT 2C

Being a portion of Lot 2-C-4-C-1-E of The First Assembly of God Subdivision (Subdivision File No. 3.2208), being also a portion of Grant 3343 to Claus Spreckels.

Situate at Puunene, Wailuku, Maui, Hawaii.

Beginning at the Northwest corner of the parcel of land, being also the Northeast corner of Unit 1 of Maui Economic Opportunity Condominium, the coordinates of said point of beginning referred to Government Survey Triangulation Station "LUKE" being 4,019.58 feet South and 15,364.93 feet East thence running by azimuths measured clockwise from true South:

1.	149°	25′	30″	979.71 feet	along Unit 2A of Maui Economic Opportunity Condominium, also along the remainder of Grant 3343 to Claus Spreckels;
2.	245°	10′		1015.06 feet	along Unit 3 of Maui Economic Opportunity Condominium, also along the remainder of Grant 3343 to Claus Spreckels;
3.	155°	10′		955.02 feet	along same;
4.	245°	10′		1474.96 feet	along Lots 2-C-4-C-1-B-1-D and 2-C-4-C-1-B-1-F of The First Assembly of God Subdivision, also along the remainder of Grant 3343 to Claus Spreckels;
					Thence along Lot 2-C-4-C-1-B-1-F of The First Assembly of God Subdivision, also along the remainder of Grant 3343 to Claus Spreckels, on a curve to the right with a radius of 1000 feet, the chord azimuth and distance being:
5.	255°	15′		350.16 feet;	
6.	265°	20′		348.01 feet	along same;

7.	203°	08′		312.58 feet	along same;
8.	214°	57′		20.01 feet	along same;
9.	321°	28′		345.03 feet	along Pulehu Road;
10.	318°	43′		1770.20 feet	along same;
11.	315°	30′		432.54 feet	along same;
					Thence along same, on a curve to the right with a radius of 50.00 feet, the chord azimuth and distance being:
12.	12°	33′	35″	83.92 feet;	
					Thence along Hansen Road, on a curve to the left with a radius of 974.93 feet, the chord azimuth and distance being:
13.	68°	18′	05″	44.85 feet;	
14.	66°	59′		480.00 feet	along same;
					Thence along same, on a curve to the right with a radius of 2844.79, the chord azimuth and distance being:
15.	69°	59′		297.77 feet;	
16.	72°	59′		630.00 feet	along same;
					Thence along same, on a curve to the right with a radius of 696.20 feet, the chord azimuth and distance being:
17.	82°	59′		241.79 feet;	
18.	92°	59′		187.11 feet	along same;
					Thence along same, on a curve to the left with a radius of 736.20 feet, the chord azimuth and distance being:

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS
501 SUMNER STREET, SUITE 521
HONOLULU, HAWAII 96817-5031
1671 WILI PA LOOP, SUITE A
WAILUKU, MAUI, HAWAII 96793
100 PAUAHI STREET, SUITE 213
HILO, HAWAII 96720

19.	83°	26′	244.28 feet;	
20.	73°	53′	407.33 feet	along same;
				Thence along same, on a curve to the left with a radius of 378.10 feet, the chord azimuth and distance being:
21.	56°	23′	227.39 feet;	
22.	38°	53′	268.88 feet	along same;
				Thence along same, on a curve to the right with a radius of 389.26 feet, the chord azimuth and distance being:
23.	62°	24′	310.64 feet;	
24.	85°	55′	789.97 feet	along same, to the point of beginning and containing an area of 166.511 Acres.

ERIK S. KANESHIRO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 9826
HAWAII, U.S.A.

Description Prepared By:

AUSTIN, TSUTSUMI & ASSOCIATES, INC.

ERIK S. KANESHIRO
Licensed Professional Land Surveyor
Certificate No. 9826
Exp. 04/26

Honolulu, Hawaii
December 18, 2024

TMK: (2) 3-8-006: POR. 004
Y:\2022\22-530 Maui Business Park DEF Subdiv\SURVEY\Descriptions\MEO CPR UNIT 2C.docx

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CIVIL ENGINEERS • SURVEYORS
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HILO, HAWAII 96720

APPENDIX 'I' – MAUI PLANNING COMMISSION RECOMMENDATION

RICHARD T. BISSEN, JR.
Mayor

JACKY TAKAKURA
Acting Director

ANA LILLIS
Deputy Director

DEPARTMENT OF PLANNING
COUNTY OF MAUI
ONE MAIN PLAZA
2200 MAIN STREET, SUITE 315
WAILUKU, MAUI, HAWAI'I 96793

February 2, 2026

Mr. Jeffrey T. Ueoka
Attorney at Law
Wells Street Law
Post Office Box 733
Wailuku, Hawai'i 96793

Dear Mr. Ueoka:

SUBJECT: MAUI PLANNING COMMISSION RECOMMENDATION OF DEFERRAL IN THE MATTER OF MAUI COUNTY COUNCIL RESOLUTION NO. 25-132, FD1, HO'ONANI VILLAGE TO AMEND THE MAUI ISLAND PLAN'S DIRECTED GROWTH MAP C5 (PŪLEHU ROAD) FOR 163.443 ACRES; TO AMEND THE WAILUKU-KAHULUI COMMUNITY PLAN DESIGNATION FROM AGRICULTURE TO BUSINESS/MULTI-FAMILY FOR 163.443 ACRES; AND TO CHANGE THE ZONING FROM AGRICULTURAL DISTRICT TO M-1 LIGHT INDUSTRIAL DISTRICT FOR 166.511 ACRES ON A PORTION OF A PARCEL IDENTIFIED FOR REAL PROPERTY TAX PURPOSES AS TMK: (2) 3-8-006:004-0005, SITUATED AT KAHULUI, MAUI, HAWAI'I (ZPA2025-00011)

At a regular meeting on January 13, 2026, the Maui Planning Commission (Commission) reviewed the above applications, received public testimony, and after due deliberation, recommended the Maui County Council's (Council) deferral of the Maui Island Plan's Directed Growth Map Amendment, Community Plan Amendment, and Change in Zoning (CIZ) for the Ho'onani Village. Deferral is recommended pending receipt of further information such as the submission of the Draft Environmental Impact Statement (EIS) to the State Land Use Commission (SLUC) and the receipt of a final decision on the District Boundary Amendment by the SLUC prior to a decision on the CIZ.

The recommendation of the Commission to the Council is as follows:

MAUI ISLAND GROWTH BOUNDARY AMENDMENT

The Commission recommends "deferral" to the Council for the Amendment to the Maui Island Plan's Directed Growth Map C5 (Pūlehu Road) to include the property within the Urban Growth Boundary, until the Draft EIS is submitted to the SLUC, and the island-wide inventory of existing land uses is updated and indicates that additional urban density land is necessary to provide for the needs of the projected population growth.

COMMUNITY PLAN AMENDMENT

The Commission recommends "deferral" to Council for the Amendment to the Wailuku-Kahului Community Plan designation for the property from Agriculture to Business/Multi-Family, until the Draft EIS is submitted to the SLUC and the Maui Island Plan Urban Growth Boundary is expanded.

CHANGE IN ZONING

The Commission recommends "deferral" to the Council for the CIZ for the property from Agricultural District to M-1, Light Industrial District, until the SLUC approves the District Boundary Amendment, and the criteria described in Maui County Code (MCC) 19.510.040.A.4 are met.

Furthermore, in the event the Council decides to move forward on these matters, the followings "recommended" conditions are for the Change in Zoning.

1. That all residential units will be rented at or below 140 percent of Area Median Income Level rental rates.

2. That all residential units will be rented at or below 140 percent of Area Median Income Level rental rates for a minimum of 30 years.

3. That Annual Compliance Reports shall be submitted to the Department of Planning.

4. That Ho'onani Village will have a minimum of 1,000 residential units and that Ho'onani Village will be built according to the phasing plan as represented in the presentation to the Commission on January 13, 2026, with the exception that the civic, recreation, entertainment, and park elements are to be built concurrently or in earlier phases than represented in the phasing plan. (Exhibit 1 is the phasing plan presented at the Commission Meeting of January 13, 2026.)

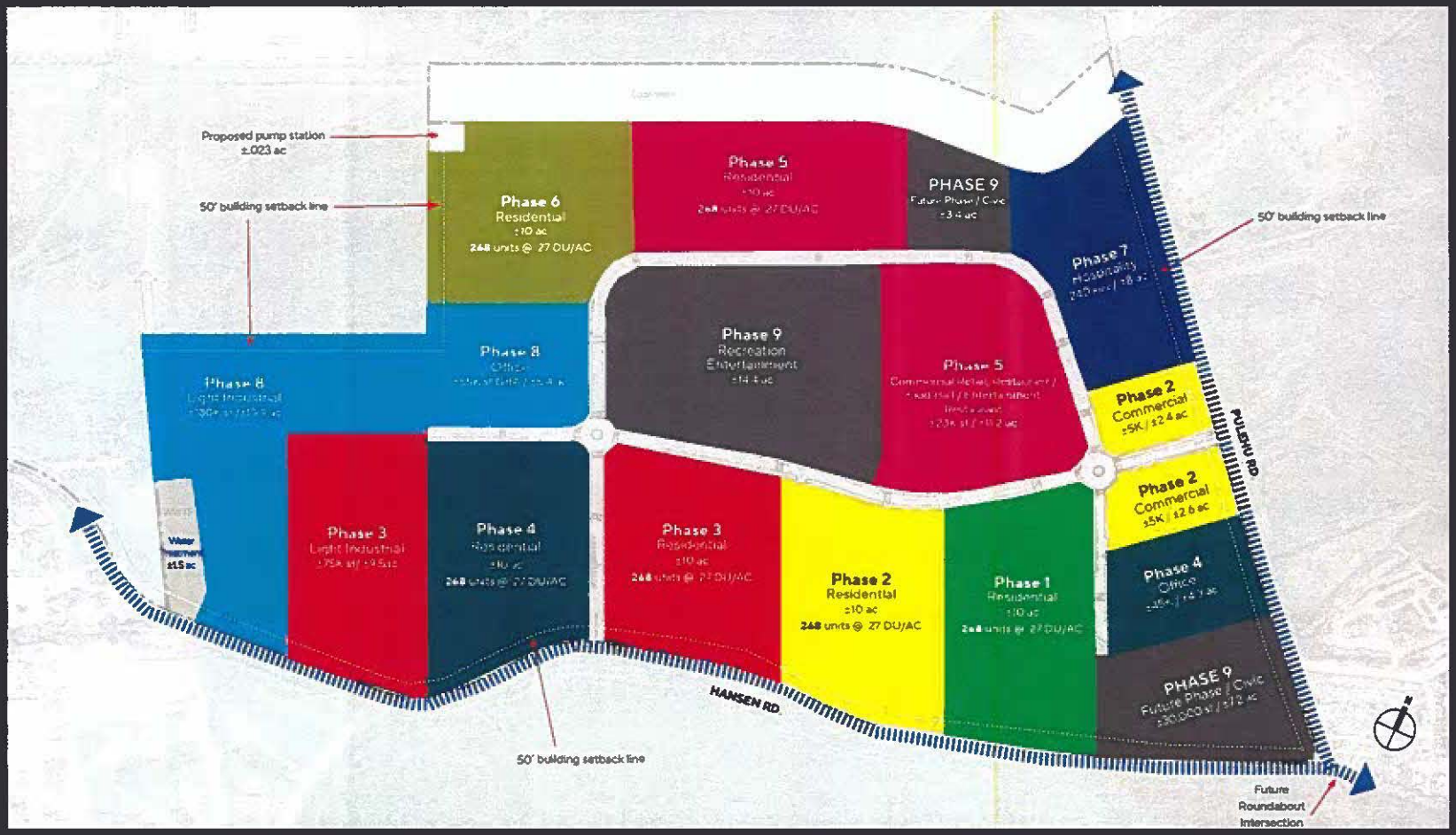
Thank you for your cooperation. If additional clarification is required, please contact Planner Kurt Wollenhaupt at kurt.wollenhaupt@mauicounty.gov or at (808) 270-1789.

Sincerely,

JACKY TAKAKURA
Acting Director

Attachment: Phasing Plan
cc: Danny A. Dias, Planning Program Administrator (PDF)
Gregory Pfost, Planning Officer (PDF)
Kurt F. Wollenhaupt, Planner (PDF)
Jeffrey T. Ueoka, Project Attorney (PDF)
JT:KFW:lp
K:\WP_DOCS\Planning\ZPA\2025\00011_Hoonanivillage\MPC Recommendation Letter\MPC Recommendation.pdf

Site Map


Proposed pump station
±.023 ac
50' building setback line
Phase 6
Residential
±10 ac
268 units @ 27 DU/AC
Phase 5
Residential
PHASE 9
Future Phase / Civic
Phase 7
Phase 8
Phase 9
Recreation
Entertainment
Phase 5
Phase 2
Commercial
±5K / ±2.4 ac
Phase 2
Commercial
±5K / ±2.6 ac
Phase 4
Office
PHASE 9
Future Phase / Civic
Phase 8
Light Industrial
Water Treatment
±1.5 ac
Phase 3
Light Industrial
Phase 4
Residential
Phase 3
Residential
±10 ac
Phase 2
Residential
±10 ac
268 units @ 27 DU/AC
Phase 1
Residential
HANSEN RD.
PULASKI RD.
50' building setback line
50' building setback line
Future
Roundabout
Intersection

Phases

Land Use Summary - 2025.10.24

uses	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9 / PHASE PARCEL	TOTAL KEYS	TOTAL GSA	TOTAL PARCEL ACREAGE	TOTAL UNIT
Multi-Family													
Market Rate Multi-Family (Walk-up) 7	268	268	268	268	268	268							1608
Affordable Multi-Family (Walk -up) 7				Part of 268		part of 268							TBD
Acreage	10	10	10	10	10	10						60	
Commercial & Others													
Commercial Retail & Restaurant 1		10,000			23,000						33,000	16.2	
Food Hall 2					7,000						7,000	(Part of 16.2)	
Entertainment Space 3					5,000						5,000	(Part of 16.2)	
Light Industrial Park 4			75,000					180,000			255,000	23.4	
Office Building 5				45,000				55,000			100,000	9.7	
Hospitality 6							240*			240*		8.0	
Future Phase Commercial / Civic 9									30,000		30,000	7.2	
Future Phase (Recreation / Entertainment / Park) 8									TBD		TBD	14.4	
Future Phase / Civic 9									TBD		TBD	3.4	
Parcel Acreage		5	9.5	4.3	11.2		8	19.3	25			82.3	
Total										240*	430,000	142	1608

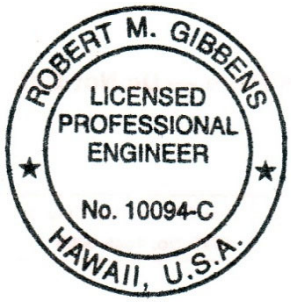
* Dual-brand Hotels site with shared common amenities; Circulation major ROW, water treatment and pump station site area are excluded

APPENDIX ‘J’ – GEOTECHNICAL REPORT

GEOTECHNICAL INVESTIGATION REPORT
HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

A report by:
HAWAII GEOTECHNICAL CONSULTING, INC.

March 4, 2026



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

SIGNATURE

04/30/2026
EXPIRATION DATE
OF LICENSE

Hawaii Geotechnical Consulting

- I n c o r p o r a t e d -

P.O. Box 331223 • Kahului, Hawaii 96733 • Phone (808) 205-1727

March 4, 2026
File No. 24024.01

Mr. Greg Sado
Ho'onani Development, LLC
Kahului, Maui, Hawaii 96793

Subject: **GEOTECHNICAL INVESTIGATION REPORT FOR HOONANI VILLAGE KAHULUI, MAUI, HAWAII**

Dear Mr. Sado:

We are pleased to submit our Geotechnical Investigation Report for the Hoonani Village project in Kahului, Maui, Hawaii. The enclosed report describes our subsurface investigation and presents our geotechnical recommendations for earthwork, foundations, retaining walls, pavements, utilities and percolation rates.

We appreciate the opportunity to work with you on this project. If you should have any questions or require additional information, please contact us.

Sincerely,

HAWAII GEOTECHNICAL CONSULTING, INC.

Robert M. Gibbens, P.E.
Senior Geotechnical Engineer

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Percolation Test No. 2 (west)

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1. INTRODUCTION

1.1 Authorization

Hawaii Geotechnical Consulting, Inc. (HGC) was retained by Hoonani Development, LLC to conduct a geotechnical investigation for the Hoonani Village project in Kahului, Maui, Hawaii. The scope of our services was outlined in our May 5, 2024 proposal No. P-780.

Authorization to proceed was received via a May 6, 2024 proposal signed by Mr. Greg Sato. The June 17, 2024 Concept Site Plan Study by AO Architecture was used during our investigation.

1.2 Purpose and Scope

The purpose of this geotechnical investigation was to explore and evaluate the proposed site's subsurface conditions in order to provide geotechnical recommendations for the project's mass grading, foundations, retaining walls, pavements, utilities and percolation rates. In addition to evaluating the subsurface soil conditions, the site's groundwater conditions and construction considerations were addressed. A description of the scope of work is presented below:

Phase 1 – Test Pit Field Investigation. A total of 42 test pits were excavated across the site with a CAT 328D excavator equipped with a 4.5-foot-wide bucket. Each test pit was excavated to an initial depth of 4 to 5 feet below the existing ground surface. The cut face of each test pit was then hand logged and relatively undisturbed drive and disturbed grab and bulk samples were obtained where appropriate. After initial logging and sample collection, each test pit was extended further. During the additional excavation, the disturbed soil cuttings were sampled when visual changes were observed.

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The test pits were excavated to depths ranging from 4 to 9 feet below the existing ground surface. An engineer with HGC observed and directed the test pit investigation, maintained a log of the subsurface soils encountered and collected relatively undisturbed drive and disturbed grab and bulk samples for laboratory testing. A description of the field investigation, the Logs of Test Pits, and a Unified Soil Classification System (USCS) chart are presented in Appendix A. The test pit locations are presented on the Test Pit Location Plan, Figure 1.

Phase 2 – Laboratory Testing. Laboratory tests were performed on relatively undisturbed drive and disturbed grab and bulk samples obtained during the field investigation. Laboratory tests were selected to verify field classifications and provide geotechnical parameters for use in design. Testing consisted of in-place dry density and moisture content, gradation, Atterberg limit and California Bearing Ratio (CBR) tests. The laboratory test methods and results are described and presented graphically in Appendix B and tabulated on the Logs of Test Pits in Appendix A, where applicable.

Phase 3 – Percolation Test. A total of two percolation tests were performed within the proposed WWTP leach field area. The percolation tests were performed at depths of 36 inches below the existing ground surface following the State of Hawaii Department of Health – Wastewater Branch testing method. The percolation test method and result are described and presented in Appendix C.

Phase 4 – Geotechnical Analysis. Our field observations and laboratory test results were analyzed in combination with the plans. We evaluated a shallow foundation system for support of the proposed project structures. Our analysis focused on the suitability of the sites in-place soils. We also analyzed the existing subsurface conditions as they relate to general site earthwork, foundations, retaining walls, pavement design and percolation rates. Design recommendations for use with standard IBC seismic criteria are also provided.

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Phase 5 – Geotechnical Report. This report was prepared to present our findings, conclusions, and recommendations regarding the geotechnical feasibility for site earthwork, foundations, retaining walls, pavement design and percolation rates. Discussions and recommendations regarding foundation types, bearing capacity, settlements and pavement design are presented.

1.3 Site Location

The proposed site is located along the valley area between Haleakala and the West Maui Mountains in Kahului, Maui, Hawaii. The site is bounded by Hansen Road to the south, by Pulehu Road to the east, existing commercial buildings and Hookele Street to the north and by vacant land to the west.

1.4 Site Description and Conditions

No topographic plans were available for the site. The site is relatively level. Unimproved soil and asphaltic paved roads were observed across the site. Signs of previous sugar cane cultivation were observed across the site including watering systems and plastic piping.

The site is currently vacant, having been most recently used for sugarcane cultivation. The sites surface varies from lightly vegetated to thickly overgrown, with thick brush and weeds observed.

END OF INTRODUCTION

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2. PROJECT DESIGN CONSIDERATIONS

2.1 Proposed Project/Development Plans

We understand that the project is a strategically planned mixed-use development located on a 165-acre site along Pulehu Road in southern Kahului. The following sections describe our understanding of the overall project scope.

2.1.1 Residential

The project will include 1,608 individual residential apartments across multiple structures. The apartment structures will consist of 3 story buildings. In addition to the structures, stormwater detention basins will be constructed along the site's northern region.

In addition to the residential structures, onsite driveways and parking lots as well as entranceways off Hansen Road and Pulehu Road will be constructed. Buried utilities including water, sewer, drain and electrical are also planned.

We understand that retaining walls may be required across the site in order to support grade changes. We have assumed that retaining walls will include either CMU or concrete cantilevered walls with unknow heights.

2.1.2 WWTP

A wastewater treatment plant is planned for the site's western region. The WWTP will include an underground septic system, holding tanks and prefabricated metal buildings. In addition, a sewer pump station is planned for the site's northern region.

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2.1.3 Well Site

Modification of an existing well, Puunene Well 6, is planned up Pulehu Road. The well site will be modified to serve the project.

2.1.4 Community Recreational Facilities

Recreational amenities including an amphitheater, pickleball/basketball courts, multiple sports fields and a dog park are potential recreation facilities or civic uses.

2.1.5 Commercial/Industrial

In addition to the residential component, multiple commercial ventures are proposed within the development. A 240-key hotel is planned within the development. We understand that 26.59 acres of commercial space is planned along with 35,000 square feet of industrial space. The commercial and industrial structures will likely be constructed of wood or steel with concrete slab on grade lower floors.

2.2 Grading

Although no grading plans were made available, we have assumed that mass grading across the relatively level site will likely include cuts and fills on the order of 1 to 3 feet. Deeper cuts will be required along the site's detention basins and buried utilities.

2.3 Pavements

We have assumed that all onsite paving will consist of asphaltic concrete (AC), with Portland Cement Concrete Pavement (PCCP) possibly used at heavily loaded or tight turning areas, such as trash enclosures as well as within the commercial and industrial areas. No traffic information was made available at this time. We have assumed traffic within the proposed residential project will include primarily passenger and light truck traffic, with assumed traffic within the proposed

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commercial and industrial projects will include primarily passenger and light to heavy truck traffic.

END OF PROJECT DESIGN CONSIDERATIONS

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3. SUBSURFACE INVESTIGATION

3.1 Test Pits

A total of 42 test pits were excavated across the proposed site. The test pits were excavated with a CAT 328D excavator equipped with a straight bar 4.5-foot-wide bucket. Each test pit was excavated to an initial depth of 4 to 5 feet below the existing ground surface. The cut face of each test pit was hand logged and relatively undisturbed drive and disturbed grab and bulk samples were obtained where appropriate. After initial logging and sample collection, each test pit was extended further. During the additional excavation, the disturbed soil cuttings were sampled when visual changes were observed.

The test pits were excavated to depths ranging from 4 to 9 feet below the existing ground surface. An engineer with HGC observed and directed the test pit investigation, maintained a log of the subsurface soils encountered and collected relatively undisturbed drive and disturbed grab and bulk samples for laboratory testing. A description of the field exploration, the Logs of Test Pits, and a USCS chart are presented in Appendix A. The Logs of Test Pits are presented as Figures A2 through A43. A USCS soil classification chart is presented as Figure A1. The test pit locations and percolation test locations are presented on the Test Pit Location Plan, Figure 1.

3.2 Laboratory Testing

Laboratory tests were performed on relatively undisturbed drive and disturbed grab and bulk samples obtained during the field investigation. Laboratory tests were selected to verify field classifications and provide geotechnical parameters for use in design. Testing consisted of in-place dry density and moisture content, gradation, Atterberg limit, CBR and Proctor tests. The laboratory test methods and results are described and presented graphically in Appendix B and tabulated on the Logs of Test Pits in Appendix A, where applicable.

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3.3 Percolation Testing

A total of two percolation tests were performed within the proposed WWTP leach field area, one along its east end and one along its west end. The percolation tests were performed at a depth of 36 inches following the State of Hawaii Department of Health – Wastewater Branch testing method.

Approximately 1 inch of clean ¾-inch gravel was placed at the bottom of a 9-inch diameter, 36-inch-deep hand excavated hole. Step D of the procedure for other type (non-granular) soils was used to perform the percolation tests, as a 12 inch head of water did not seep away in under 10 minutes, twice. After a minimum of 4 hours of presoaking, maintaining a 12-inch head, the hole was allowed to swell for at least 12 hours. After swelling, water was then added to 6 inches above the gravel and allowed to percolate. The water drop was recorded every 30-minute time interval for 4 hours. The final drop used to calculate the percolation rates.

A senior engineer with HGC performed the percolation test and maintained a log of the time and water drop intervals. The percolation test result is presented in Appendix C.

END OF SUBSURFACE INVESTIGATION

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4. SUBSURFACE CONDITIONS

4.1 General

The site is generally blanketed by a layer of agriculturally disturbed soil underlain by alluvial (water deposited) soil to the maximum depth of our explorations. A detailed description of the underlying soils is presented below.

Map 104 of the August 1972 *United States Department of Agriculture Soil Conservation Service Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* indicates that the proposed site is within the (EaA) Ewa series. This series is characterized by well drained soils in basins and on alluvial fans on the islands of Maui and Oahu. These soils developed in alluvium derived from basic igneous rock. They are nearly level to moderately sloping. These soils are used for sugarcane, truck crops, and pasture. The depth to bedrock is deeper than 5 feet. The Unified Soil Classification is ML-MH.

4.2 Agriculturally Disturbed Soil

The site was recently used for the cultivation of cane sugar. The cultivation process left the entire site with approximately 12 to 30 inches of agriculturally disturbed soil. Roots and black irrigation plastic were encountered within the agriculturally disturbed soils to depths between 6 and 12 inches.

The agriculturally disturbed clayey silt consisted of low plasticity clayey silt with varying percentages of sand, typically classified as ML under the USCS. The clayey silt was generally soft and dry, with measured in-place dry densities ranging from 68 to 75 pounds per cubic foot (pcf) and measured in-place moisture contents ranging from 11 to 21 percent, with a single measured moisture content as high as 38 percent. Atterberg limit tests on the low plasticity agriculturally disturbed clayey silts indicated they possess low- to low-moderate plasticity, with Plasticity Index (PI) values ranging from 14 to 22.

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In addition to the agriculturally disturbed clayey silt, several areas of agriculturally disturbed silty sand, typically classified as SM under the USCS, were encountered across the site. The silty sand was encountered from the ground surface to depths of 12 to 24 inches. The silty sand was generally loose and dry, with measured in-place dry densities ranging from 93 to 101 pcf and measured in-place moisture contents ranging from 8 to 17 percent.

4.3 Alluvial Soil

Low plasticity alluvial orange-brown silts were encountered below the upper agriculturally disturbed clayey silts. The alluvial silts were encountered from a depth of 12 to 30 inches to the maximum depth of our explorations at 9 feet. The alluvial silts were typically classified as ML under the USCS. The silts were generally hard and damp to moist, with measured in-place dry densities ranging from 72 to 82 pcf and measured in-place moisture contents ranging from 12 to 33 percent. Atterberg limit tests on the low plasticity silts indicated they possess a low- to low-moderate plasticity, with Plasticity Index (PI) values ranging from 9 to 24. The alluvial silt along the WWTP region, in the area of the proposed leach field, possessed percolation rates ranging from of 5.9 minutes per inch (west) to 11.4 minutes per inch (east).

In addition to the alluvial silts, several areas of alluvial silty sand and silty gravel, typically classified as SM and GM under the USCS, respectively, were encountered across the site. The silty sand and silty gravel was encountered from depths of 6.0 to 7.5 feet to the maximum depth of our explorations at 9 feet. The silty sand and silty gravel was generally dense and damp to moist, with measured in-place moisture contents ranging from 10 to 27 percent.

4.4 Undocumented Fill

Limited areas of undocumented fill were encountered along the sites southwestern corner (Test Pit Nos. 22 and 25). The undocumented fill consisted of soft clayey

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silt and loose silty sand. The fill was encountered from the ground surface to depths of 1 foot. A 1.5-inch asphaltic pavement section was encountered below the undocumented fill in Test Pit No. 25.

The clayey silt fill is typically classified as ML under the USCS. The clayey silt was generally soft and dry, with a measured in-place dry density of 70 pcf and a measured moisture content of 14 percent. The silty sand fill is typically classified as SM under the USCS. The silty sand was generally loose and dry, with a measured in-place dry density of 93 pcf and a measured moisture content of 8 percent.

4.5 Groundwater Conditions

No free water or groundwater was encountered during our field investigation and is not expected to impact construction. Groundwater levels within the project areas may vary depending on seasonal rainfall and runoff conditions not apparent at the time of our field investigation. Therefore, groundwater levels may vary from those presented above at the time of construction.

END OF SUBSURFACE CONDITIONS

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5. DISCUSSION AND ANALYSIS

5.1 General

Based on the results of our field exploration, laboratory testing, and geotechnical analysis, we believe that it is geotechnically feasible to construct the proposed mixed-use project, provided the recommendations of this report are closely followed. The primary geotechnical concern regarding the proposed construction is the presence of soft and loose agriculturally disturbed soils across the site as well as the presence undocumented fill along the sites southwest corner. A more detailed discussion regarding these as well as other concerns is presented below.

5.2 Agriculturally Disturbed Soils

Between 12 and 30 inches of the sites upper soils have been agriculturally disturbed by the past sugar cane cultivation. The disturbed soils are generally soft or loose and dry, possessing the potential for future settlement if not remediated. The agriculturally disturbed soils will need to be removed down to within 12 inches of the bottom of the agriculturally disturbed soils within all fill areas, foundations or roadways. The final in-place 12 inches of agriculturally disturbed soils should be scarified and moisture conditioned in-place prior to being compacted to no less than 90 percent of the soils maximum dry density at a moisture content within 3 percent of its optimum moisture content in accordance with ASTM D1557.

The removed agriculturally disturbed soils can then be placed and compacted back to their original level or to finished grade. The recompacted agriculturally disturbed soils should be placed in accordance with Section 6.7.4 Engineered Fill.

5.3 Undocumented Fill

Undocumented fill was encountered within Test Pit Nos. 22 and 25 at the sites southwest corner. The undocumented fill was encountered in a soft to loose state from the ground surface to a depth of 12 inches.

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We recommend that the soils at the sites southwest corner be proof rolled in order to detect any additional undocumented fill, if it exists. We recommend that the proof rolling be performed with a minimum of a 12-ton vibratory smooth drum roller. The proof rolling should be observed by HGC personnel. All undocumented fill should be removed and recompacted in-place to no less than 90 percent of the soils maximum dry density at a moisture content within 3 percent of its optimum moisture content in accordance with ASTM D1557.

END OF DISCUSSION AND ANALYSIS

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6. ENGINEERING RECOMMENDATIONS

6.1 General

Site grading design can be developed in accordance with the following recommendations. Unless stated otherwise, the maximum dry density (MDD) and optimum moisture content (OMC) of all engineered fill referenced within this report is based on Laboratory Test Method ASTM D1557.

6.2 Seismic Design Considerations

The following sections address what we believe to be the project's major seismic design considerations.

6.2.1 Ground Shaking

The proposed development is located in an area with some seismic activity and the proposed structures will likely be subjected to seismic shaking during their design life. The primary potential seismic hazard is ground shaking. We recommend that the proposed development be designed in accordance with the requirements of the latest (2018) edition of the International Building Code (IBC). According to Table 1613.52 of the 2018 IBC, the project site can be characterized by a Site Class of C.

6.2.2 Liquefaction

Liquefaction occurs in loose, saturated sands that are subjected to earthquake type motions. In sands where constant volume conditions are maintained during shaking (i.e., where no immediate drainage path exists), excess pore water pressures build quickly and as a result, soil strength is rapidly reduced and settlement occurs. Neither loose sands nor a shallow groundwater table underlie the site. Therefore no liquefaction-induced settlements are likely.

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6.2.3 Other Seismic Considerations

The site is not located within an Earthquake Fault Zone. Therefore the likelihood of the ground surface rupturing due to faulting is considered to be low. Based on the materials encountered and the existing and planned topographic conditions, we do not expect seismic slope instability to be a concern. Due to the site's elevation, we do not believe that tsunamis are a potential threat.

6.3 Foundations

The residential, commercial and industrial structures may be founded on shallow continuous strip or spread footings provided the recommendations for site preparation are followed. We recommend that all foundations founded in recompacted previously agriculturally disturbed clayey silt, native alluvial silt, or granular engineered fill be placed a minimum depth of 12 inches below the lowest adjacent grade for both interior and exterior footings. These embedment depths should provide bearing surfaces consisting of either fine grained clayey silt or coarse grained granular engineered fil.

For a shallow foundation system designed with the recommendations presented above, an allowable bearing pressure of 3,050 pounds per square foot (psf) may be used. This bearing value is for total dead plus sustained live loads and may be increased by one-third for transient loads such as wind or seismic. We estimate that total and differential settlements should be less than ½-inch for foundations designed as described above.

The bottom of all foundations should be cleaned of loose material and all uncompacted agriculturally disturbed soils should be compacted to no less than 90 percent of the soils MDD at a moisture content within 3 percent of its OMC. The subgrade soil should also be compacted to at least 90 percent of the materials MDD at a moisture content within 3 percent of its OMC. Footings located near adjacent slopes should be embedded such that a minimum horizontal distance of

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5 feet is maintained between the footing's bottom edge and the exposed slope face.

Lateral resistance may be derived from passive resistance along the footing sides and friction along the footing bottoms. An allowable passive earth pressure of 250 psf per foot of depth may be used for footings founded in either compacted previously agriculturally disturbed soil, alluvial soil or engineered fill. We recommend that the lateral earth pressure of any footing be neglected for the upper 12-inches unless the surface around the footing is protected from erosion or disturbance by a slab, pavement, or some other form of confinement.

A coefficient of friction value of 0.45 may be used between the bottom of concrete footings and the underlying compacted previously agriculturally disturbed soil, alluvial soil or engineered fill. Sliding resistance should be calculated based on the dead load only.

6.4 Slab-on Grade Floors

Concrete slab-on-grade floors bearing on compacted previously agriculturally disturbed soil, alluvial soil or engineered fill can be used for the residential, commercial or industrial structures. If reducing the passage of water vapor through the slab is desired, we recommend that a vapor barrier be placed beneath the slab.

For exterior slabs and slabs designed as rigid pavements, the water vapor barrier can be replaced by 6 inches of Aggregate for Untreated Base (UTB). The UTB should conform to Section 703.06 of the 2005 Hawaii Standard Specifications for Road, Bridge, and Public Works Construction (Standard Specifications). The UTB should be compacted to at least 95 percent of its MDD.

Lateral resistance may be derived from passive resistance along the footing sides and friction along the footing bottoms. An allowable passive earth pressure of 250

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psf per foot of depth may be used for footings founded in either compacted previously agriculturally disturbed soil, alluvial soil or engineered fill. We recommend that the lateral earth pressure of any footing be neglected for the upper 12-inches unless the surface around the footing is protected from erosion or disturbance by a slab, pavement, or some other form of confinement.

A coefficient of friction value of 0.45 may be used between the bottom of concrete footings and the underlying compacted previously agriculturally disturbed soil, alluvial soil or engineered fill. Sliding resistance should be calculated based on the dead load only.

6.5 Retaining Walls

We understand that the yielding free-standing retaining walls may be used to support site grade changes across the site. We have assumed that site walls will be CMU or concrete within unknown heights, but likely with heights less than 6 feet. We have assumed that most wall backfill will be level onsite soil.

Unrestrained walls that are free to rotation at the top should be designed with active lateral earth pressures. For yielding CMU or concrete walls with level backfill, we recommend that an active lateral earth pressure equivalent to a fluid weighing **45 pcf** be used in design.

Lateral resistance may be derived from passive resistance along the wall footing sides and friction along the footing bottoms. An allowable passive earth pressure of 250 psf per foot of depth may be used for design. We recommend that the lateral earth pressure of any footing be neglected for the upper 12-inches unless the surface around the footing is protected from erosion or disturbance by a slab, pavement, or some other form of confinement.

A coefficient of friction value of 0.45 may be used between the bottom of the concrete footings and the previously agriculturally disturbed soil, alluvial soil or

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engineered fill. Sliding resistance should be calculated based on the dead load only.

These pressures are given in terms of equivalent fluid pressure for unrestrained walls and do not include compaction-induced, surcharge, foundation, or hydrostatic loads, which must be added where appropriate.

Wall backfill should be placed and compacted in accordance with the engineered fill recommendations. Wall backfill compaction should not exceed 95 percent relative compaction to minimize lateral wall pressures. Heavy construction equipment should be maintained a distance of at least three feet away from the walls while the backfill soils are being placed. Hand operated compaction equipment should be used to compact the wall backfill within a three foot zone adjacent to the walls.

Adequate wall drainage should be provided.

6.6 Pavement Design

Detailed vehicular load and frequency information was not made available to us. We have assumed traffic within the proposed residential project will include passenger and light truck traffic while assumed traffic within the proposed commercial/industrial project will include passenger and light to heavy truck traffic.

6.6.1 Flexible Pavement

The sites upper agriculturally disturbed soils will likely be used for support of the sites pavements, including entranceways, driveways, parking lots and roadways. A California Bearing Ratio (CBR) test on the sites upper clayey silt soils indicate a CBR value of 18. Based on a CBR of 18, and the assumed traffic, we believe that a pavement section consisting of 2.5 inches of Asphaltic Concrete over 6.0 inches of UTB should be sufficient for the residential passenger and light truck traffic while

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a pavement section consisting of 3.0 inches of Asphaltic Concrete over 8.0 inches of UTB should be sufficient for the commercial/industrial passenger and light to heavy truck traffic.

The UTB should conform to Sections 703.06 of the 2005 Standard Specifications and should be compacted to at least 95 percent of the materials MDD at a moisture content between optimum and 3 percent wet of the soils OMC. All pavement subgrades should be sloped to drain. All pavement subgrades should be compacted to at least 90 percent of their MDD at a moisture content at least 2 percent wet of their OMC for a depth of at least 12 inches.

6.6.2 Rigid Pavement

Portland cement concrete pavements (PCCP) may be desirable at entry points and other locations where tight-turning heavy vehicles are expected. For residential usage, we recommend a 6-inch thick rigid concrete pavement over 6 inches of UTB. For commercial/industrial usage, we recommend a 6-inch thick rigid concrete pavement over 8 inches of UTB.

The UTB should conform to Section 703.06 of the Standard Specifications and should be compacted to at least 95 percent of the materials MDD. The subgrade should be compacted to at least 90 percent of its MDD at a moisture content within 3 percent of its OMC for a depth of at least 12 inches.

6.6.3 Construction Considerations

After completion of site grading, we recommend that the final subgrade soils be tested for their CBR value to confirm the values assumed in design. Modified pavement sections may be required if subgrade conditions vary from those assumed in design.

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In the event unstable (pumping) subgrades are encountered within the planned pavement areas, we recommend that a heavy rubber tired vehicle (typically a loaded water truck) be used to test the load/deflection characteristics of the finished subgrade. If the tested surface shows a visible deflection, corrective measures should be implemented.

6.7 Construction Considerations

The following recommendations are provided for geotechnical earthwork design. All site preparation and earthwork operations should be performed in accordance with the Standard Specifications.

6.7.1 Stripping and Grubbing

Prior to commencement of site grading, the site should be cleared and grubbed to remove all organics, vegetation, and other deleterious materials in accordance with the Standard Specifications. We anticipate stripping and grubbing will include surface vegetation and the removal of all irrigation plastic. We believe the stripping and grubbing to depths of 6 inches will be required. Organic material should not be mixed with the underlying native soils that may be later used as fill or backfill. Material with organic matter in excess of about 4 percent should not be used as fill or backfill.

The stripping and grubbing work should include the removal or recompaction of all agriculturally disturbed soils that, in the judgment of the geotechnical engineer, is uncertified, compressible, collapsible, or contains significant voids. The voids caused by the removal of subsurface features, if encountered, must also be processed and backfilled in accordance with the recommendations presented in this report.

6.7.2 Site Preparation

Based on our interpretation of the geotechnical subsurface profile, we anticipate that the soils exposed during construction will consist primarily of fine-grained

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clayey silts. All areas to receive fill should be stripped and grubbed to expose a firm, non-yielding subgrade, free of large voids, organics, and deleterious materials. The exposed subgrade soils should be moisture conditioned to within 3 percent of the soils OMC for a depth of at least 12 inches prior to being compacted to at least 90 percent of the soils MDD.

6.7.3 Excavation Characteristics

We anticipate that cuts of less than 3 feet may be required for mass grading with cuts of as much as 10 to 15 feet required for the installation of detention basins and buried utilities. We believe that conventional earth moving construction equipment should be capable of performing the anticipated excavations. Areas with limited excavation widths, such as utility trenches, may encountered boulders that may be difficult to remove without the assistance of some form of hard rock removal technique.

6.7.4 Engineered Fill

The onsite soils are generally suitable for use as engineered fill provided all organics and rocks or clods larger than 6 inches in diameter are removed and the fill is placed to within 3 percent of the soils OMC. If imported fill is required it should consist of coarse-grained material with a maximum particle size of 3 inches. Additionally, all imported fill should possess a PI less than 20 and should qualify as SW, SP, GP, GM or SM in accordance with the USCS.

All fill should be placed in successive horizontal lifts of not more than 12 inches in loose thickness for the full width of the area being filled. The fill should be moisture conditioned to within 3 percent the materials OMC prior to being compacted to at least 90 percent of its MDD.

Ground surfaces to receive fill with slopes in excess of 5H:1V should be benched with a series of horizontal terraces prior to fill placement. The benches should

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extend through any disturbed slope materials into the native alluvial or alluvial soils.

6.8 Utilities

All utility installations should be performed in accordance with the Standard Specifications. The following recommendations are meant to supplement the Standard Specifications.

We recommend that the minimum excavated width for any utility trench be such that at least 14 inches of clearance exists between the edge of the utility pipe and the excavated trench sidewall prior to utility pipe placement. Insufficient space between the utility pipe and trench sidewall could lead to inadequate backfill compaction and potential pipe failure.

All utility backfills should be placed in horizontal lifts for the full width of the utility trench prior to compaction. In overwidened trenches, such as trenches excavated in hard rock, arching or shaping of the initial bedding lifts should not be allowed.

Shallow temporary utility trench excavations are anticipated for installation of the required utility lines. All vertical or steeply sided trench excavations deeper than 5 feet should be braced and shored in accordance with good construction practices and all applicable safety ordinances and codes.

6.9 Site Drainage

The ground surface should slope away from pavement areas, toward appropriate drop inlets or other surface drainage devices. These grades should be maintained for the life of the project.

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7. ADDITIONAL SERVICES

We recommend that a thorough review of the project plans and specifications be conducted before they are finalized to verify that our geotechnical recommendations have been properly interpreted and implemented during the design. If we are not accorded this review, we can assume no responsibility for misinterpretation of our recommendations. The review can be completed on a time-and-expense basis in accordance with our current Fee Schedule.

The construction process is an integral design component with respect to the geotechnical aspects of a project. Because geotechnical engineering is an inexact science due to the variability of natural processes and because we sample only a small portion of the soils affecting the performance of the proposed structures, unanticipated or changed conditions can be disclosed during grading. Proper geotechnical observation and testing during construction is imperative to allow the geotechnical engineer the opportunity to verify assumptions made during the design. Therefore, we recommend that Hawaii Geotechnical Consulting, Inc. be kept apprised of design modifications and construction schedules for the proposed development so that design changes can be made if subsurface field conditions warrant.

END OF ADDITIONAL SERVICES

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8. LIMITATIONS

This report has been prepared for the exclusive use of Ho'onani Development, LLC and their agents for specific application to the proposed Hoonani Village project in Kahului, Maui, Hawaii.

The findings, conclusions, and recommendations presented in this report were prepared in accordance with generally accepted geotechnical engineering practice as it exists in the site area at the time of our study. No warranty is expressed or implied. The recommendations provided in this report are based on the assumption that our firm will conduct an adequate program of tests and observations during the construction phase in order to evaluate compliance with our recommendations. If the scope of the proposed construction, including the proposed loads, grades, or structural locations change from that described in this report, our recommendations should also be reviewed. We have not reviewed a final grading or building plan for the project.

Hazardous materials may have been discovered during the course of Hawaii Geotechnical Consulting, Inc.'s services. Hawaii Geotechnical Consulting, Inc. will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury that results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

Nothing contained in this scope of work should be construed or interpreted as requiring Hawaii Geotechnical Consulting, Inc. to assume the status of an owner, operator, generator, or person who arranges for disposal, transport, storage, or treatment of hazardous materials within the meaning of any governmental statute, regulation, or order.

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The client has the responsibility to see that all parties to the project, including the designer, contractor, subcontractor, etc., are made aware of this report in its entirety. This report contains information that may be useful in the preparation of contract specifications. However, the report is not designed as a specification document and may not contain sufficient information for this use without proper modification.

The recommendations contained in this report are based on our field observations and our present knowledge of the proposed construction. It is possible that soil conditions could vary between or beyond the areas observed. If soil conditions are encountered during construction which differ from those described herein, we should be notified immediately in order that a review may be made and any supplemental recommendations provided.

This report may be used only by the client and only for the purpose stated, within a reasonable time from its issuance. Land use, site conditions (both onsite and offsite) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify Hawaii Geotechnical Consulting, Inc. of such intended use. Based on the intended use of this report, Hawaii Geotechnical Consulting, Inc. may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Hawaii Geotechnical Consulting, Inc. from any liability resulting from the use of this report by any unauthorized party.

END OF LIMITATIONS

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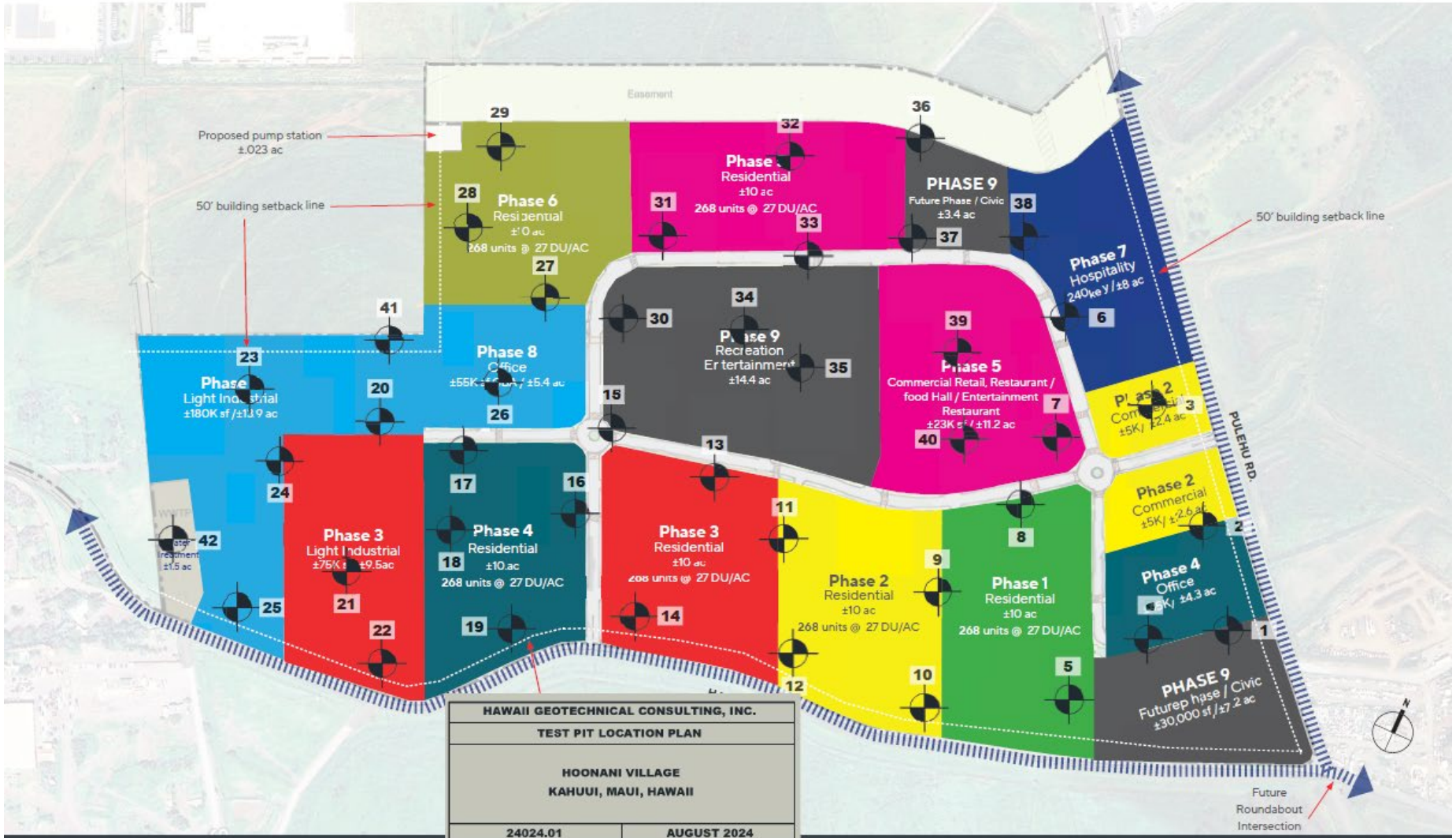
FIGURES



Ho'onani Development

PROPOSED MASTER SITE PLAN

Kahului, Maui, Hawaii

Concept Site Plan Study

am

Land Use Diagr

Architecture. Design. Relationships.

2

APPENDIX A
Field Exploration

APPENDIX A
FIELD EXPLORATION

The subsurface exploration program for the Hoonani Village project included excavating and logging a total of 42 test pits. The test pits were excavated to depths ranging from 4 to 9 feet below the existing ground surface.

The Logs of Test Pits are presented as Figures A2 through A43. A USCS soil classification chart is presented as Figure A1. The Logs of Test Pits describe the materials encountered, samples obtained, and show field and laboratory tests performed. The logs also show the test pit number, excavation date, name of the logger and excavation subcontractor, and the groundwater level. A senior geotechnical engineer logged the materials encountered in accordance with the USCS. The boundaries between soil types shown on the logs are approximate because the transition between different soil layers may be gradual.

The test pits were excavated with a CAT 328D excavator equipped with a straight bar 4.5-foot-wide bucket. Each test pit was excavated to an initial depth of 4 to 5 feet below the existing ground surface, where possible. The cut face of each test pit was then hand logged and disturbed grab and bulk samples and relatively undisturbed drive samples were obtained where appropriate. After initial logging and sample collection, each excavatable test pit was extended further, where possible. During the additional excavation, the disturbed soil cuttings were observed and sampled when visual changes were observed.

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COARSE GRAINED SOILS MORE THAN HALF OF THE MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COURSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS (LITTLE OR NO FINES)	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNTS OF FINES)	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF OF COURSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS (LITTLE OR NO FINES)	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNTS OF FINES)	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN HALF OF THE MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTSAND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SOILS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

USCS SOIL CLASSIFICATION CHART

FIGURE
A1

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	70	13	Gravel = 0% Sand = 20% Silt/Clay = 80% LL = 46 PI = 18
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand and trace Gravel and Cobble ALLUVIUM	orange brown gray	hard		4.00	78	16	Gravel = 1% Sand = 16% Silt/Clay = 83%
4			Refusal on Cobbles and Boulders at 4.0 feet No free water observed Test pit backfilled with excavated materials							
5										
6										
7										
8										
9										
10										

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DATE 06/28/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 1

FIGURE
A2

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) and Sand (roots/irrigation plastic to 12-in.)	brown	soft	dry	1.25	71	17	Gravel = 0% Sand = 35% Silt/Clay = 65%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (MH) with Sand	orange brown	hard	dry	4.00	80	21	Gravel = 0% Sand = 23% Silt/Clay = 77% LL = 57 PI = 24
5	■	3	SILT (ML) with Sand				4.00	81	21	Gravel = 0% Sand = 21% Silt/Clay = 79%
8	■	4	SILT (ML) with some Sand				--	--	22	Gravel = 0% Sand = 11% Silt/Clay = 89%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 2

FIGURE
A3

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	SILTY SAND (SM) (roots/irrigation plastic to 12-in.) AGRICULTURALLY DISTURBED	brown	loose	dry	1.00	101	17	Gravel = 0% Sand = 53% Silt/Clay = 47%
3	■	2	SILT (ML) with Sand				4.00	78	18	Gravel = 0% Sand = 26% Silt/Clay = 74%
5	■	3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	--	16	Gravel = 0% Sand = 11% Silt/Clay = 89%
8	■	4	SILT (ML) with trace Sand ALLUVIUM				--	--	18	Gravel = 0% Sand = 8% Silt/Clay = 92%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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DATE 07/01/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 3

FIGURE
A4

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) and Sand (roots/irrigation plastic to 12-in.)	brown	soft	dry	1.25	75	15	Gravel = 0% Sand = 33% Silt/Clay = 67%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) and Sand				4.00	80	22	Gravel = 0% Sand = 32% Silt/Clay = 68%
5	■	3	SILT (ML) with Gravel and some Sand	orange brown	hard	dry	--	79	17	Gravel = 24% Sand = 14% Silt/Clay = 62%
8	■	4	SILT (ML) with some Sand and trace Gravel				--	--	21	Gravel = 2% Sand = 17% Silt/Clay = 81%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 4

FIGURE
A5

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1		1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 12-in.)	brown	soft	dry	1.25	70	14	Gravel = 0% Sand = 19% Silt/Clay = 81%
2			AGRICULTURALLY DISTURBED							
3		2	SILT (ML) with trace Sand				4.00	80	19	Gravel = 0% Sand = 26% Silt/Clay = 74%
5		3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	--	20	Gravel = 0% Sand = 65% Silt/Clay = 35%
8		4	SILT (ML) with some Sand				--	--	20	Gravel = 0% Sand = 37% Silt/Clay = 63%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 5

FIGURE
A6

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	Drive/Grab	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	74	16	Gravel = 0% Sand = 14% Silt/Clay = 86%
2			AGRICULTURALLY DISTURBED							
3	Drive/Grab	2	SILT (ML) with some Sand				4.00	79	27	Gravel = 0% Sand = 11% Silt/Clay = 89%
5	Drive/Grab	3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	--	25	Gravel = 0% Sand = 12% Silt/Clay = 88%
8	Drive/Grab	4	SILT (ML) with some Sand				--	--	22	Gravel = 0% Sand = 13% Silt/Clay = 87%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 6

FIGURE
A7

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1		1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	70	16	Gravel = 0% Sand = 17% Silt/Clay = 83% LL = 53 PI = 22
2			AGRICULTURALLY DISTURBED							
3		2	SILT (ML) with some Sand				4.00	76	24	Gravel = 0% Sand = 12% Silt/Clay = 88%
5		3	SILT (ML) with Sand	orange brown	hard	dry	4.00	--	26	Gravel = 0% Sand = 23% Silt/Clay = 77%
8		4	SILT (ML) with some Sand				--	--	21	Gravel = 0% Sand = 11% Silt/Clay = 89%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 7

FIGURE
A8

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1		1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 12-in.)	brown	soft	dry	1.25	72	15	Gravel = 0% Sand = 11% Silt/Clay = 89%
2			AGRICULTURALLY DISTURBED							
3		2	SILT (ML) with trace Sand				4.00	80	25	Gravel = 0% Sand = 0% Silt/Clay = 100%
5		3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	82	21	Gravel = 0% Sand = 4% Silt/Clay = 96%
8		4	SILT (ML) with some Sand				--	--	25	Gravel = 0% Sand = 7% Silt/Clay = 93%
9			ALLUVIUM							
			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 8

FIGURE
A9

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand and trace Gravel (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	72	18	Gravel = 4% Sand = 24% Silt/Clay = 72% LL = 43 PI = 17
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand				4.00	81	22	Gravel = 0% Sand = 19% Silt/Clay = 81%
5	■	3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	79	20	Gravel = 0% Sand = 12% Silt/Clay = 88%
8	■	4	SILT (ML) and Sand				--	--	18	Gravel = 0% Sand = 46% Silt/Clay = 54%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 9

FIGURE
A10

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand and with Gravel (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	73	15	Gravel = 22% Sand = 23% Silt/Clay = 55% LL = 45 PI = 15
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) and Sand	orange brown	hard	dry	4.00	79	25	Gravel = 0% Sand = 37% Silt/Clay = 63% LL = 44 PI = 13
5	■	3	SILT (ML) with Sand				4.00	--	20	Gravel = 2% Sand = 22% Silt/Clay = 76%
8	■	4	SILT (ML) with Sand ALLUVIUM				--	--	20	Gravel = 0% Sand = 27% Silt/Clay = 73%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 10

FIGURE
A11

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	73	21	Gravel = 0% Sand = 14% Silt/Clay = 86% LL = 40 PI = 17
			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) and Sand				4.00	77	20	Gravel = 0% Sand = 35% Silt/Clay = 65%
5	■	3	SILT (ML) and Sand	orange brown	hard	dry	4.00	--	19	Gravel = 0% Sand = 45% Silt/Clay = 55%
8	■	4	SILT (ML) and Sand				--	--	19	Gravel = 0% Sand = 30% Silt/Clay = 70%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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DATE 06/23/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 11

FIGURE
A12

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	Bulk	1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	--	16	Gravel = 0% Sand = 23% Silt/Clay = 77%
2			AGRICULTURALLY DISTURBED							
3	Bulk	2	SILT (ML) with Sand				4.00	79	21	Gravel = 0% Sand = 22% Silt/Clay = 78%
5	Bulk	3	SILT (ML) with Sand	orange brown	hard	damp	4.00	--	22	Gravel = 0% Sand = 21% Silt/Clay = 79%
8	Bulk	4	SILT (ML) and Sand				--	--	19	Gravel = 10% Sand = 31% Silt/Clay = 59%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 12

FIGURE
A13

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1		1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	70	16	Gravel = 0% Sand = 12% Silt/Clay = 88%
2			AGRICULTURALLY DISTURBED							
3		2	SILT (ML) with Sand	orange brown	hard	damp	4.00	79	19	Gravel = 0-% Sand = 22% Silt/Clay = 78%
4										
5		3	SILT (ML) with Sand				4.00	81	20	Gravel = 0% Sand = 20% Silt/Clay = 80%
6										
7										
8		4	SILT (ML) and Sand				--	--	22	Gravel = 0% Sand = 48% Silt/Clay = 52%
9			ALLUVIUM							
10			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							

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DATE 06/22/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 13

FIGURE
A14

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	71	17	Gravel = 0% Sand = 20% Silt/Clay = 80% LL = 48 PI = 19
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with Sand				4.00	79	22	Gravel = 0% Sand = 21% Silt/Clay = 79%
5	■	3	SILT (ML) with some Sand	orange brown	hard	damp	4.00	79	19	Gravel = 0% Sand = 17% Silt/Clay = 83%
8	■	4	SILT (ML) and Sand				--	--	18	Gravel = 0% Sand = 35% Silt/Clay = 65%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 14

FIGURE
A15

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) and Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	73	15	Gravel = 0% Sand = 34% Silt/Clay = 66%
			AGRICULTURALLY DISTURBED							
2										
3	■	2	SILT (ML) with Sand				4.00	77	17	Gravel = 0% Sand = 26% Silt/Clay = 74%
4										
5	■	3	SILT (ML) with Sand	orange brown	hard	damp	4.00	--	18	Gravel = 0% Sand = 25% Silt/Clay = 75% LL = 37 PI = 12
6										
7										
8	■	4	SILT (ML) and Sand				--	--	18	Gravel = 0% Sand = 40% Silt/Clay = 60%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 15

FIGURE
A16

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	69	12	Gravel = 7% Sand = 21% Silt/Clay = 72% LL = 41 PI = 16
			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with trace Sand				4.00	79	18	Gravel = 0% Sand = 9% Silt/Clay = 91%
5	■	3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	--	17	Gravel = 0% Sand = 10% Silt/Clay = 90%
8	■	4	SILT (ML) with some Sand				--	--	18	Gravel = 0% Sand = 15% Silt/Clay = 85%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 16

FIGURE
A17

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	71	17	Gravel = 0% Sand = 22% Silt/Clay = 78%
3	■	2	AGRICULTURALLY DISTURBED SILT (ML) with some Sand				4.00	79	20	Gravel = 0% Sand = 12% Silt/Clay = 88%
5	■	3	SILT (ML) with Sand	orange brown	hard	damp	4.00	--	19	Gravel = 0% Sand = 27% Silt/Clay = 73%
8	■	4	SILT (ML) with some Sand ALLUVIUM				--	--	19	Gravel = 0% Sand = 16% Silt/Clay = 84%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 17

FIGURE
A18

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand and trace Gravel (roots to 30-in.)	brown	soft	dry	1.25	70	17	Gravel = 2% Sand = 27% Silt/Clay = 70%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand				4.00	77	19	Gravel = 0% Sand = 12% Silt/Clay = 88%
4			with Cobble from 4.0 ft.							
5	■	3	SILT (ML) with some Sand and, with Cobble and trace Boulders	orange brown	hard	dry	4.00	--	20	Gravel = 0% Sand = 11% Silt/Clay = 89%
6										
7										
8	■	4	SILT (ML) with some Sand				--	--	20	Gravel = 0% Sand = 12% Silt/Clay = 88%
9			ALLUVIUM							
			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 18

FIGURE
A19

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 12-in.)	brown	soft	dry	1.25	74	11	Gravel = 0% Sand = 12% Silt/Clay = 88%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with Sand				4.00	79	18	Gravel = 0% Sand = 23% Silt/Clay = 77%
5	■	3	SILT (ML) with Sand	orange brown	hard	damp	4.00	--	19	Gravel = 0% Sand = 20% Silt/Clay = 80%
8	■	4	SILT (ML) with Sand				--	--	21	Gravel = 0% Sand = 22% Silt/Clay = 78%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 19

FIGURE
A20

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1		1	CLAYEY SILT (ML) with some Sand and trace Gravel (irrigation plastic to 6-in.)	brown	soft	dry	1.00	71	18	Gravel = 1% Sand = 15% Silt/Clay = 84% CBR = 18 Swell = 0.3% Proctor: 96 pcf @ 29
2	A									
3		2	AGRICULTURALLY DISTURBED SILT (ML) with Sand				4.00	80	19	Gravel = 0% Sand = 22% Silt/Clay = 78%
4										
5		3	SILT (ML) with Sand	orange brown	hard	dry	4.00	79	17	Gravel = 0% Sand = 20% Silt/Clay = 80%
6										
7										
8		4	SILT (ML) with Sand ALLUVIUM				--	--	19	Gravel = 0% Sand = 20% Silt/Clay = 80%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 20

FIGURE
A21

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with trace Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	71	20	Gravel = 0% Sand = 4% Silt/Clay = 96%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand	orange brown	hard	damp	4.00	77	18	Gravel = 0% Sand = 18% Silt/Clay = 82%
5	■	3	SILT (ML) with some Sand				4.00	--	19	Gravel = 0% Sand = 19% Silt/Clay = 81%
8	■	4	SILT (ML) with some Sand ALLUVIUM				--	--	18	Gravel = 0% Sand = 15% Silt/Clay = 85%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 21

FIGURE
A22

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
		1	SILTY SAND (SM) with some Gravel (roots to 6-in.) FILL	brown	loose	dry	--	93	8	Gravel = 17% Sand = 53% Silt/Clay = 30%
3		2	SILT (ML) with Sand	orange brown	hard	damp	4.00	80	17	Gravel = 0% Sand = 25% Silt/Clay = 75%
5		3	SILT (ML) and Sand				4.00	77	18	Gravel = 0% Sand = 32% Silt/Clay = 68%
8		4	SILT (ML) and Sand ALLUVIUM				--	--	18	Gravel = 0% Sand = 32% Silt/Clay = 68%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							

1 2 3 4 5 6 7 8 9 10

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 22

FIGURE
A23

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand	brown	soft	dry	1.25	70	17	Gravel = 0% Sand = 20% Silt/Clay = 80% LL = 47 PI = 16
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) and Sand	orange brown	hard	dry	4.00	78	18	Gravel = 0% Sand = 42% Silt/Clay = 58%
5	■	3	SILT (ML) with Sand				4.00	--	19	Gravel = 0% Sand = 27% Silt/Clay = 73%
8	■	4	SILT (ML) with Sand ALLUVIUM				--	--	18	Gravel = 0% Sand = 28% Silt/Clay = 72%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 23

FIGURE
A24

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	Drive/Grab	1	CLAYEY SILT (ML) with Sand and trace gravel (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	71	18	Gravel = 4% Sand = 24% Silt/Clay = 72%
2			AGRICULTURALLY DISTURBED							
3	Drive/Grab	2	SILT (ML) and Sand	orange brown	hard	moist	4.00	79	25	Gravel = 0% Sand = 34% Silt/Clay = 66%
5	Drive/Grab	3	SILT (ML) with Sand and some Gravel			damp	4.00	--	20	Gravel = 17% Sand = 29% Silt/Clay = 54%
6			ALLUVIUM							
8	Drive/Grab	4	SILTY SAND (SM) with some Gravel		dense		--	--	20	Gravel = 16% Sand = 50% Silt/Clay = 34%
9			ALLUVIUM							
10			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 24

FIGURE
A25

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1		1	CLAYEY SILT (ML) with some Sand (roots to 6-in.) FILL	brown	soft	dry	1.00	70	14	Gravel = 0% Sand = 14% Silt/Clay = 86%
			1.5-in. Asphaltic Pavement							
3		2	SILT (ML) with Sand				4.00	79	19	Gravel = 0% Sand = 21% Silt/Clay = 79%
5		3	SILT (ML) and Sand	orange brown	hard	dry	4.00	79	23	Gravel = 0% Sand = 49% Silt/Clay = 51%
8		4	SILT (ML) and Sand ALLUVIUM				--	--	21	Gravel = 0% Sand = 44% Silt/Clay = 56% LL = 37 PI = 9
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 25

FIGURE
A26

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	70	20	Gravel = 0% Sand = 11% Silt/Clay = 89%
3	■	2	SILT (ML) with some Sand				4.00	77	21	Gravel = 0% Sand = 16% Silt/Clay = 84%
5	■	3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	79	19	Gravel = 0% Sand = 17% Silt/Clay = 83%
8	■	4	SILT (ML) with some Sand				--	--	21	Gravel = 0% Sand = 14% Silt/Clay = 86%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							

AGRICULTURALLY DISTURBED

ALLUVIUM

10

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 26

FIGURE
A27

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots to 1.5 ft. and irrigation plastic to 0.5-ft.)	brown	soft	dry	1.25	71	18	Gravel = 0% Sand = 14% Silt/Clay = 86%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with trace Sand	orange brown	hard	dry	4.00	72	21	Gravel = 0% Sand = 1% Silt/Clay = 99% LL = 37 PI = 10
4										
5	■	3	SILT (ML) with some Sand				4.00	--	19	Gravel = 0% Sand = 14% Silt/Clay = 86%
6										
7										
8	■	4	SILT (ML) and Sand with some Gravel				--	--	17	Gravel = 15% Sand = 35% Silt/Clay = 51%
9			ALLUVIUM							
10			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 27

FIGURE
A28

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots to 1.5 ft. and irrigation plastic to 0.5-ft.)	brown	soft	dry	1.00	70	19	Gravel = 0% Sand = 10% Silt/Clay = 90% LL = 46 PI = 16
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand				4.00	79	17	Gravel = 0% Sand = 19% Silt/Clay = 81%
4										
5	■	3	SILT (ML) with some Sand	orange brown	hard	damp	4.00	--	19	Gravel = 0% Sand = 15% Silt/Clay = 85%
6										
7										
8	■	4	SILT (ML) with some Sand and trace Boulders				--	--	19	Gravel = 0% Sand = 15% Silt/Clay = 85% LL = 37 PI = 9
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 28

FIGURE
A29

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 24-in.)	brown	soft	dry	1.25	73	17	Gravel = 0% Sand = 22% Silt/Clay = 78%
2										
3			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand	orange brown	hard	damp	4.00	78	17	Gravel = 0% Sand = 11% Silt/Clay = 89%
4										
5	■	3	SILT (ML) with Sand				4.00	--	19	Gravel = 0% Sand = 27% Silt/Clay = 73%
6										
7										
8	■	4	SILT (ML) with Sand				--	--	20	Gravel = 0% Sand = 22% Silt/Clay = 78%
9			ALLUVIUM							
10			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							

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KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 29

FIGURE
A30

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1		1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	71	18	Gravel = 0% Sand = 2% Silt/Clay = 98%
2			AGRICULTURALLY DISTURBED							
3		2	SILT (ML) with some Sand	orange brown	hard	damp	4.00	79	22	Gravel = 0% Sand = 13% Silt/Clay = 87%
4										
5		3	SILT (ML) with Sand				4.00	80	22	Gravel = 0% Sand = 20% Silt/Clay = 80%
6										
7										
8		4	SILT (ML) with some Sand				--	--	22	Gravel = 0% Sand = 14% Silt/Clay = 86%
9			ALLUVIUM							
			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 30

FIGURE
A31

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 12-in.)	brown	soft	dry	1.00	73	15	Gravel = 0% Sand = 17% Silt/Clay = 83% LL = 48 PI = 16
			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand				4.00	80	21	Gravel = 0% Sand = 11% Silt/Clay = 89%
5	■	3	SILT (ML) with Sand	orange brown	hard	damp	4.00	--	20	Gravel = 0% Sand = 25% Silt/Clay = 75%
8	■	4	SILT (ML) and Sand				--	--	21	Gravel = 0% Sand = 34% Silt/Clay = 66%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 31

FIGURE
A32

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 12-in.) AGRICULTURALLY DISTURBED	brown	soft	dry	1.25	68	14	Gravel = 0% Sand = 15% Silt/Clay = 85%
1										
2										
3	■	2	SILT (ML) with some Sand				4.00	79	21	Gravel = 0% Sand = 15% Silt/Clay = 85%
4										
5	■	3	SILT (ML) with some Sand	orange brown	hard	damp	4.00	77	19	Gravel = 0% Sand = 17% Silt/Clay = 83%
6										
7										
8	■	4	SILT (ML) with some Sand ALLUVIUM				--	--	19	Gravel = 0% Sand = 18% Silt/Clay = 82%
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 32

FIGURE
A33

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 6-in.)	brown	soft	moist	1.25	70	38	Gravel = 0% Sand = 20% Silt/Clay = 80%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with somee Sand	orange brown	hard	moist	4.00	80	24	Gravel = 0% Sand = 15% Silt/Clay = 85%
5	■	3	SILT (ML) and Sand				4.00	--	32	Gravel = 0% Sand = 36% Silt/Clay = 64%
			ALLUVIUM							
8	■	4	SILTY SAND (SM)		dense		--	--	27	Gravel = 0% Sand = 59% Silt/Clay = 41%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 33

FIGURE
A34

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 12-in.)	brown	soft	dry	1.25	70	17	Gravel = 0% Sand = 23% Silt/Clay = 77%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with trace Sand				4.00	79	19	Gravel = 0% Sand = 29% Silt/Clay = 71%
5	■	3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	81	18	Gravel = 0% Sand = 40% Silt/Clay = 60%
8	■	4	SILT (ML) with some Sand				--	--	18	Gravel = 0% Sand = 23% Silt/Clay = 77%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 34

FIGURE
A35

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 18-in.)	brown	soft	dry	1.25	73	15	Gravel = 0% Sand = 18% Silt/Clay = 82% LL = 46 PI = 15
			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand				4.00	79	19	Gravel = 0% Sand = 18% Silt/Clay = 82%
5	■	3	SILT (ML) and Sand	orange brown	hard	dry	4.00	--	19	Gravel = 0% Sand = 37% Silt/Clay = 63%
8	■	4	SILT (ML) with some Sand and trace Boulders				--	--	24	Gravel = 0% Sand = 14% Silt/Clay = 86%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 35

FIGURE
A36

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	70	14	Gravel = 0% Sand = 26% Silt/Clay = 74% LL = 47 PI = 16
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand			damp	4.00	79	20	Gravel = 0% Sand = 17% Silt/Clay = 83%
4										
5	■	3	SILT (ML) with some Sand	orange brown	hard		4.00	79	24	Gravel = 0% Sand = 10% Silt/Clay = 90%
6						moist				
7										
8	■	4	SILT (ML) and Sand				--	--	33	Gravel = 0% Sand = 36% Silt/Clay = 64%
9			ALLUVIUM							
			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 36

FIGURE
A37

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.00	72	14	Gravel = 0% Sand = 17% Silt/Clay = 83%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand				4.00	80	21	Gravel = 0% Sand = 14% Silt/Clay = 86%
5	■	3	SILT (ML) with Sand	orange brown	hard	dry	4.00	--	30	Gravel = 0% Sand = 29% Silt/Clay = 71%
8	■	4	SILT (ML) with some Sand				--	--	20	Gravel = 0% Sand = 13% Silt/Clay = 87%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 37

FIGURE
A38

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1		1	CLAYEY SILT (ML) with Sand (roots/irrigation plastic to 12-in.)	brown	soft	dry	1.00	71	17	Gravel = 0% Sand = 24% Silt/Clay = 76% LL = 43 PI = 14
2			AGRICULTURALLY DISTURBED							
3		2	SILT (ML) with some Sand				4.00	80	19	Gravel = 0% Sand = 15% Silt/Clay = 85%
5		3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	--	22	Gravel = 0% Sand = 14% Silt/Clay = 86%
8		4	SILT (ML) with some Sand				--	--	29	Gravel = 0% Sand = 15% Silt/Clay = 85%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 38

FIGURE
A39

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	Bulk Sample / Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	Bulk	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	--	17	Gravel = 0% Sand = 13% Silt/Clay = 87%
2			AGRICULTURALLY DISTURBED							
3	Drive/Grab	2	SILT (ML) with somee Sand				4.00	80	20	Gravel = 0% Sand = 11% Silt/Clay = 89%
5	Drive/Grab	3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	--	23	Gravel = 0% Sand = 11% Silt/Clay = 89%
8	Drive/Grab	4	SILT (ML) and Sand				--	--	27	Gravel = 0% Sand = 34% Silt/Clay = 66%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 39

FIGURE
A40

Date Completed:	06/21/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	70	14	Gravel = 0% Sand = 18% Silt/Clay = 82%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with some Sand				4.00	--	12	Gravel = 0% Sand = 13% Silt/Clay = 87%
4										
5	■	3	SILT (ML) with some Sand	orange brown	hard		4.00	80	23	Gravel = 0% Sand = 11% Silt/Clay = 89%
6						moist				
7										
8	■	4	SILT (ML) and Sand				--	--	31	Gravel = 0% Sand = 30% Silt/Clay = 70%
9			ALLUVIUM							
			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 40

FIGURE
A41

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	dry	1.25	73	12	Gravel = 7% Sand = 21% Silt/Clay = 72%
			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with trace Sand				4.00	79	18	Gravel = 0% Sand = 9% Silt/Clay = 91%
5	■	3	SILT (ML) with some Sand	orange brown	hard	dry	4.00	--	17	Gravel = 0% Sand = 10% Silt/Clay = 90%
8	■	4	SILT (ML) with some Sand				--	--	18	Gravel = 0% Sand = 15% Silt/Clay = 85%
			ALLUVIUM							
9			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 41

FIGURE
A42

Date Completed:	06/20/2024	Water Depth:	Not Encountered
Drilled By:	Alpha Construction	Elevation:	--
Drilling Method:	Excavator	Location:	--
Logged By:	R.M. Gibbens, P.E.	Symbols:	⊠ Bulk Sample ■ Drive/Grab Sample

Depth (feet)	Sample Type	Sample No.	GEOTECHNICAL DESCRIPTION AND CLASSIFICATION	Color	Consistency	Moisture	Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Additional Tests
1	■	1	CLAYEY SILT (ML) with some Sand (roots/irrigation plastic to 6-in.)	brown	soft	damp	1.00	72	19	Gravel = 0% Sand = 16% Silt/Clay = 84%
2			AGRICULTURALLY DISTURBED							
3	■	2	SILT (ML) with Sand	orange brown	hard		4.00	80	20	Gravel = 0% Sand = 29% Silt/Clay = 71%
5	■	3	SILT (ML) and Sand with trace Cobble				4.00	--	19	Gravel = 0% Sand = 35% Silt/Clay = 65%
6			ALLUVIUM							
8	■	4	SILTY GRAVEL (GM) with some Sand and some Cobble		dense		--	--	10	Gravel = 70% Sand = 18% Silt/Clay = 12%
9			ALLUVIUM							
			Bottom of Excavation at 9.0 feet No free water observed Test pit backfilled with excavated materials							
10										

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KAHULUI, MAUI, HAWAII

LOG OF TEST PIT 42

FIGURE
A43

APPENDIX B
Laboratory Testing

APPENDIX B
LABORATORY TESTING

Laboratory tests were performed on selected grab, bulk, and drive samples to estimate their pertinent engineering characteristics. Testing was performed in accordance with ASTM Standards for Soil Testing, latest revision.

MOISTURE CONTENT AND DRY DENSITY

Natural moisture content and dry density tests were performed on multiple samples in accordance with ASTM D2216 and D2937, respectively. The results of these tests are presented on the Logs of Test Pits in Appendix A.

PLASTICITY

Atterberg limits tests were performed in accordance with ASTM D4318. The results of the tests are presented on the Logs of Test Pits in Appendix A and graphically in Appendix B.

GRAIN SIZE

Grain size analyses were performed on select samples in accordance with ASTM D2487. The results are presented on the Logs of Test Pits in Appendix A.

CALIFORNIA BEARING RATIO (CBR)

Two CBR tests were performed on a representative sample of the site's predominant near surface soils in accordance with ASTM D1883. The result is presented graphically in Appendix B and presented on the Logs of Test Pits in Appendix A.

COMPACTION

The optimum moisture content and maximum dry density of a soil sample was determined in accordance with ASTM D1557. The result is presented graphically in Appendix B and presented on the Logs of Test Pits in Appendix A.

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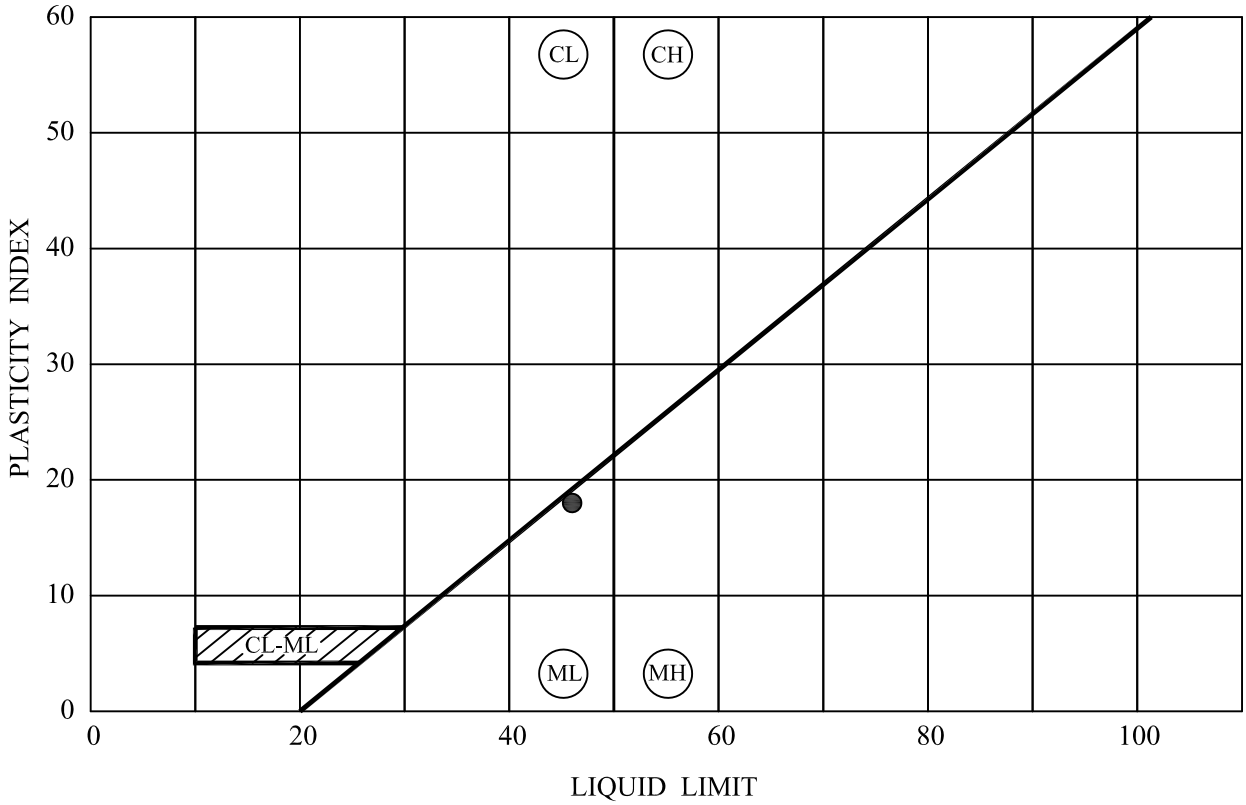

	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	1-1	1.0	46	28	18	Brown Clayey SILT (ML) with Sand

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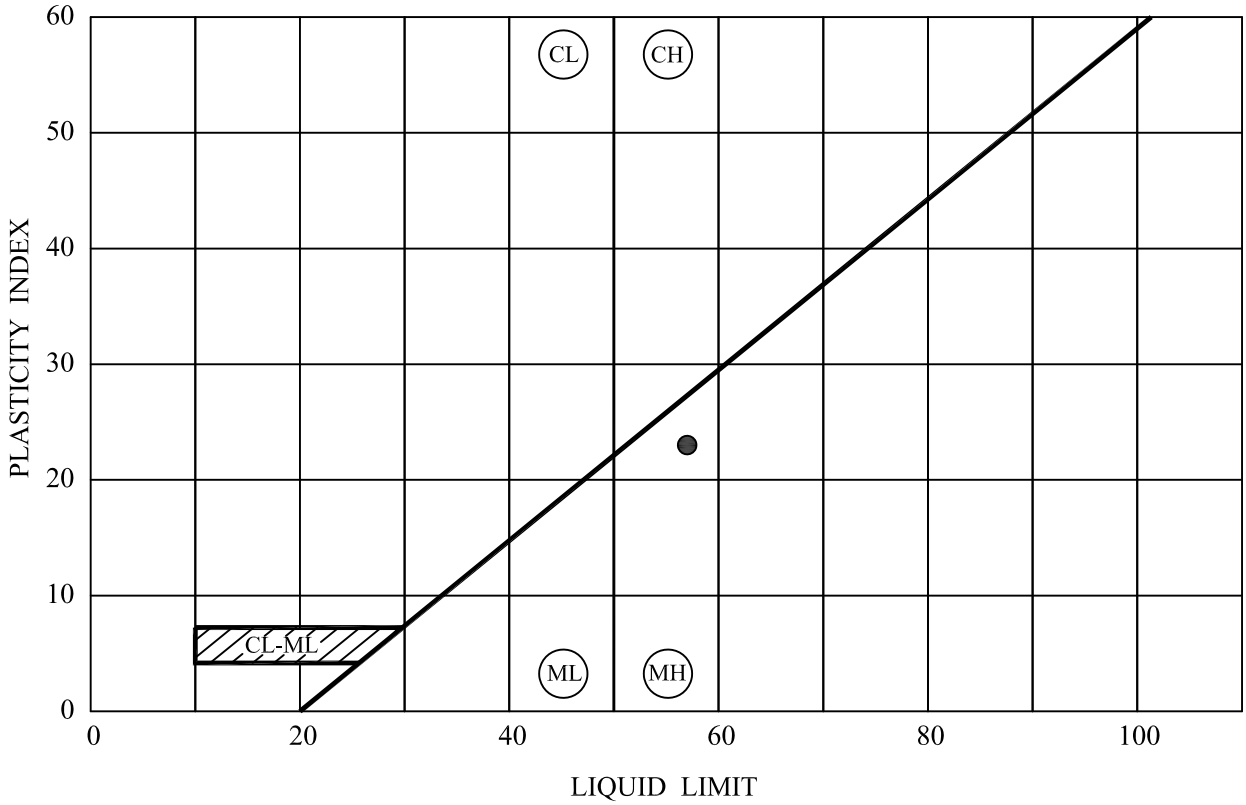
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B1



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	2-2	3.0	57	34	23	Orange Brown SILT (MH) with Sand

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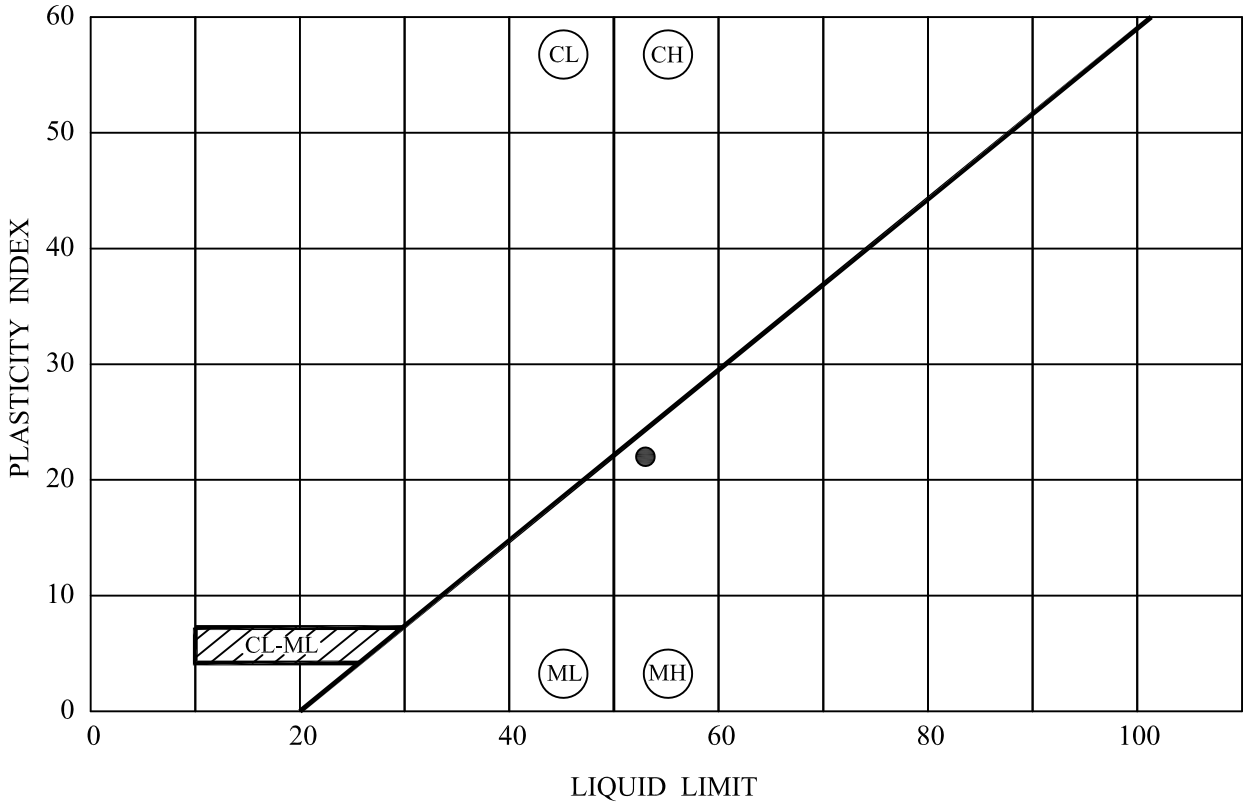
FIGURE
B2



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	7-1	1.0	53	31	22	Brown Clayey SILT (MH) with some Sand

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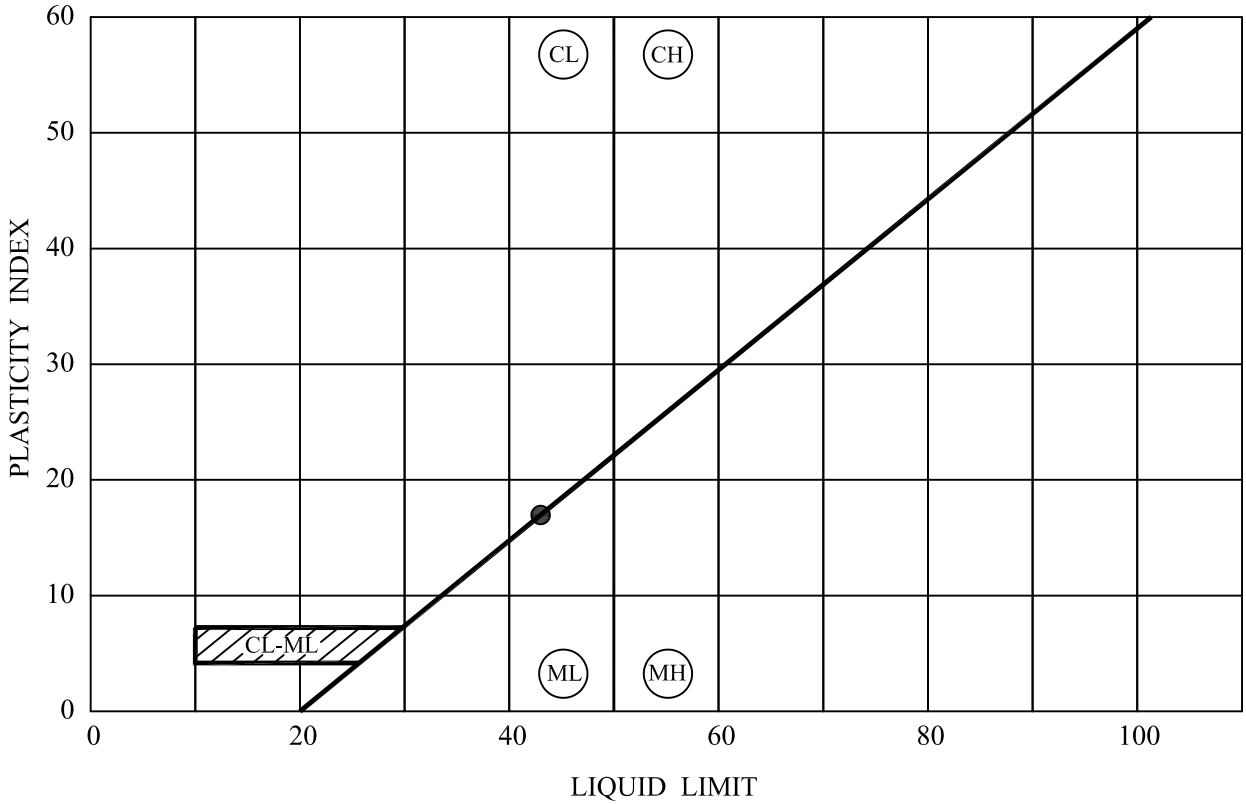
FIGURE
B3



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	9-1	1.0	43	26	17	Brown Clayey SILT (ML) with Sand and trace Gravel

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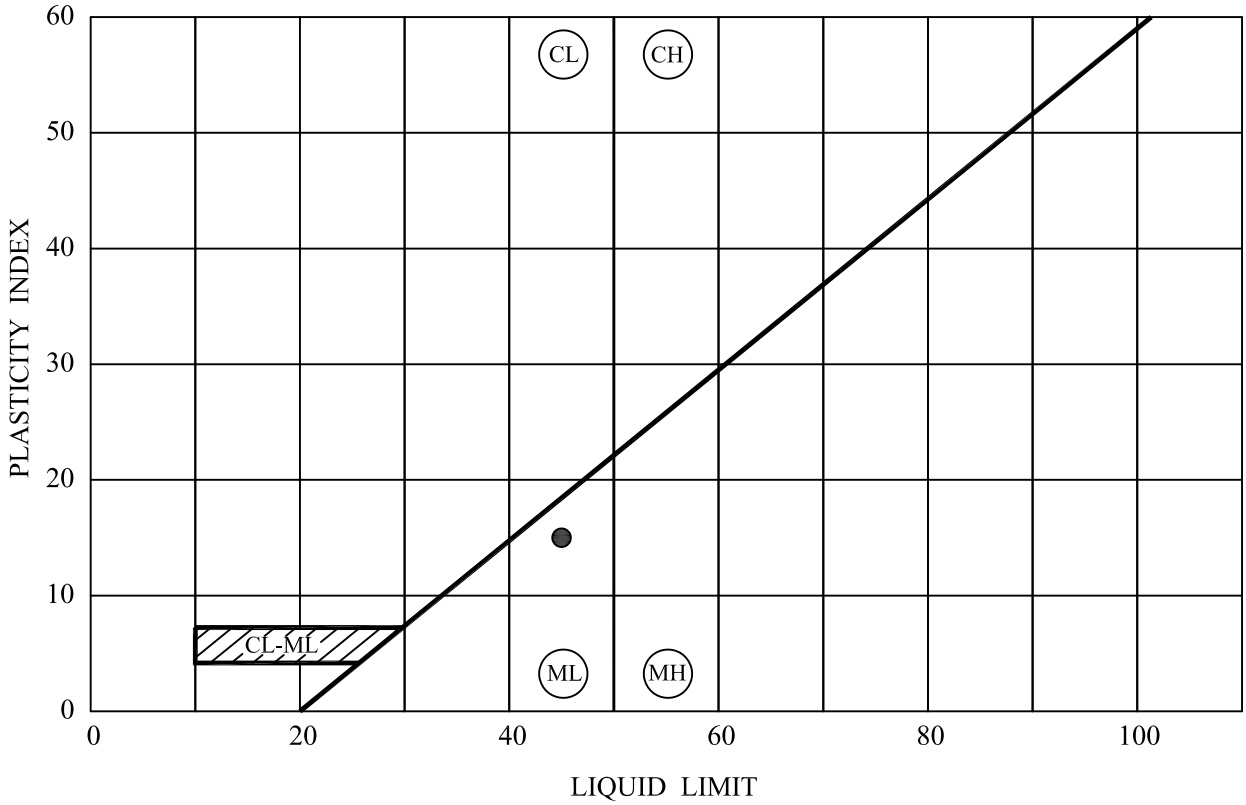
FIGURE
B4



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	10-1	1.0	45	30	15	Brown CLAYEY SILT (ML) with Sand and with Gravel

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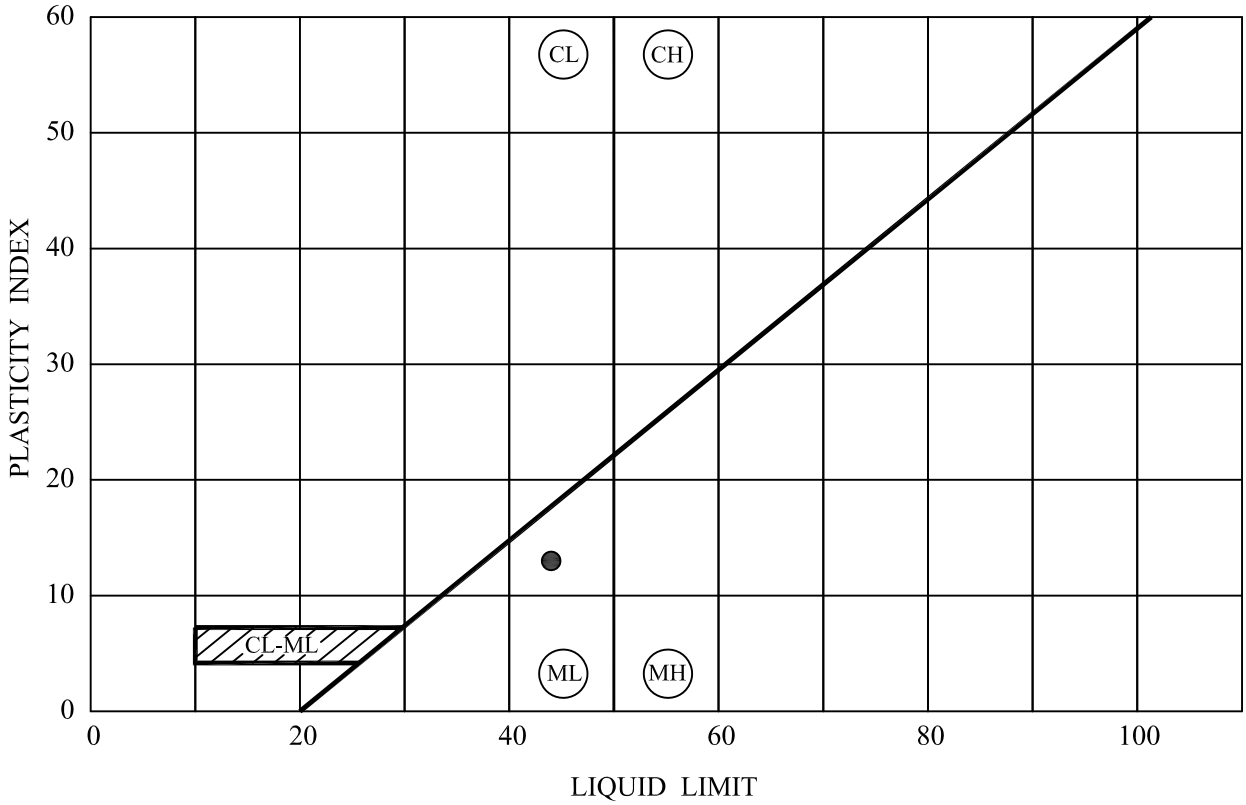
FIGURE
B5



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	10-2	3.0	44	31	13	Orange Brown SILT (ML) and Sand

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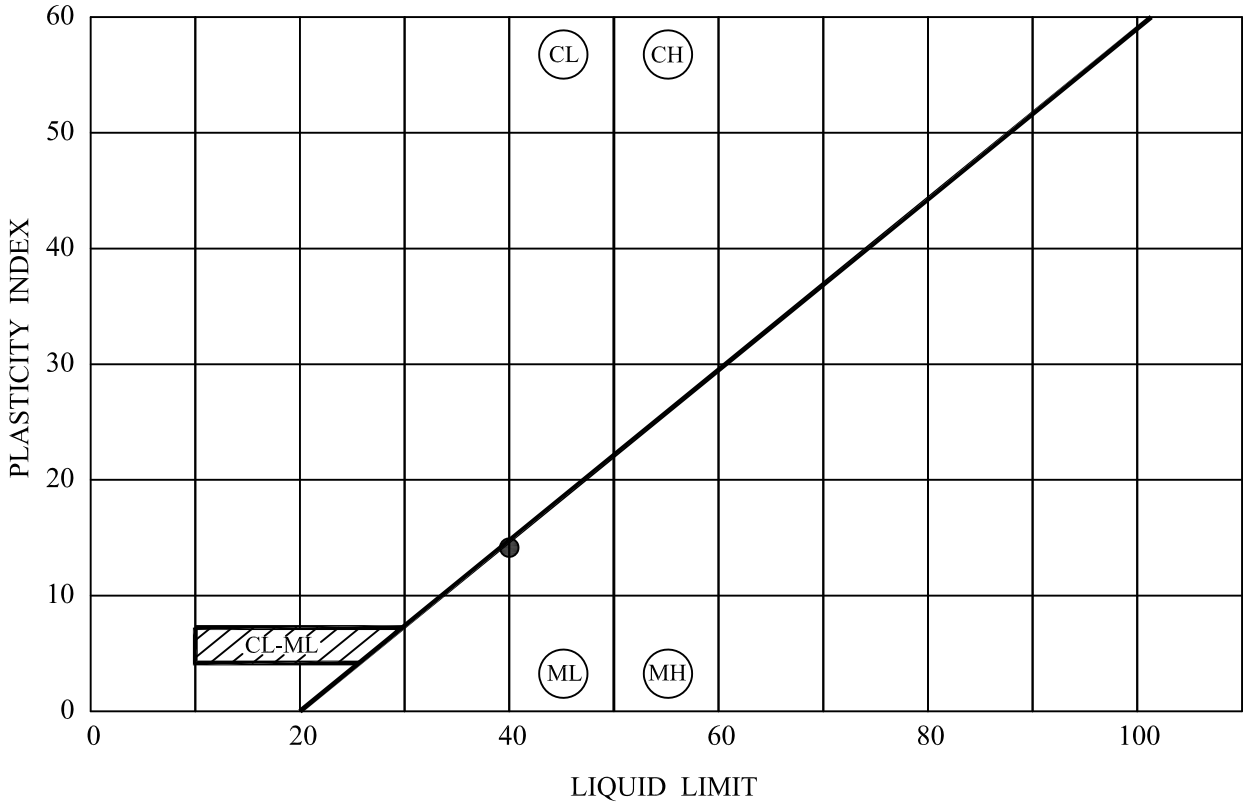
PLASTICITY INDEX

FIGURE
B6



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	11-1	1.0	40	26	14	Brown Clayey SILT (MH) with some Sand

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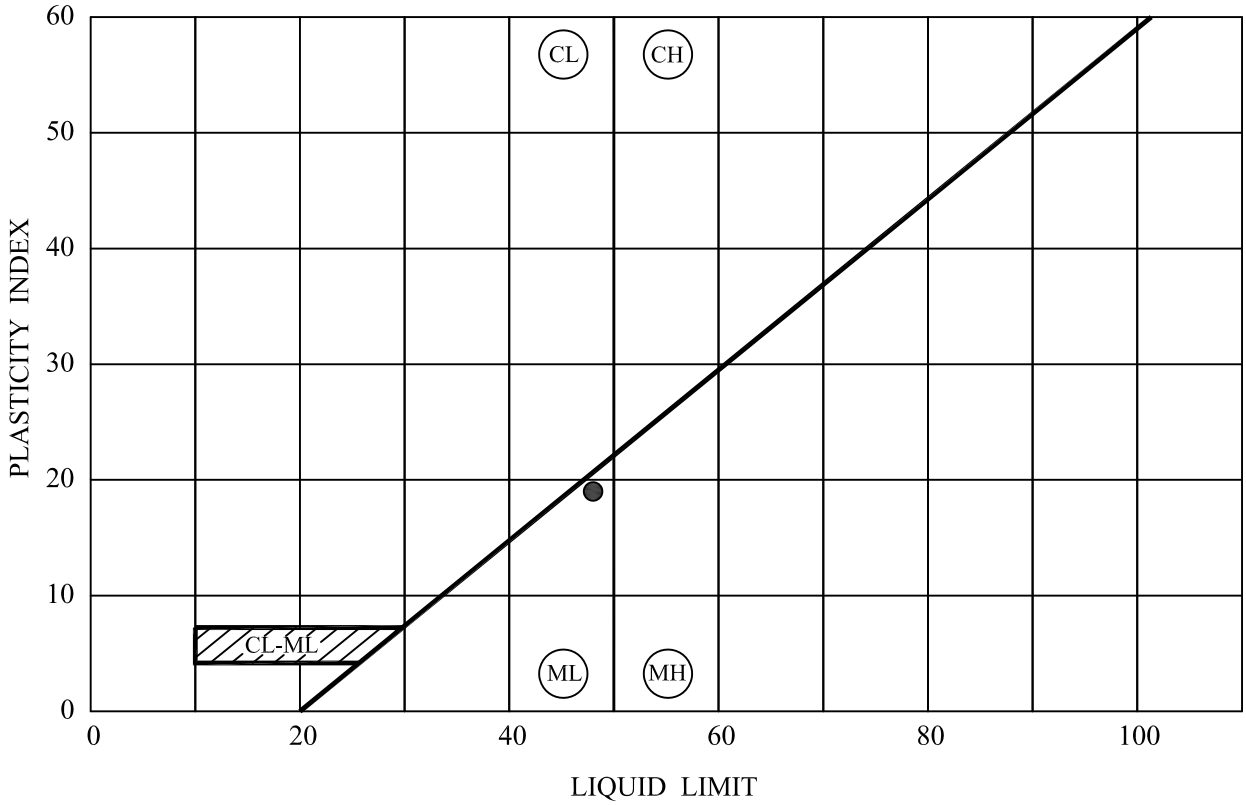
FIGURE
B7



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	14-1	1.0	48	29	19	Brown CLAYEY SILT (ML) with Sand

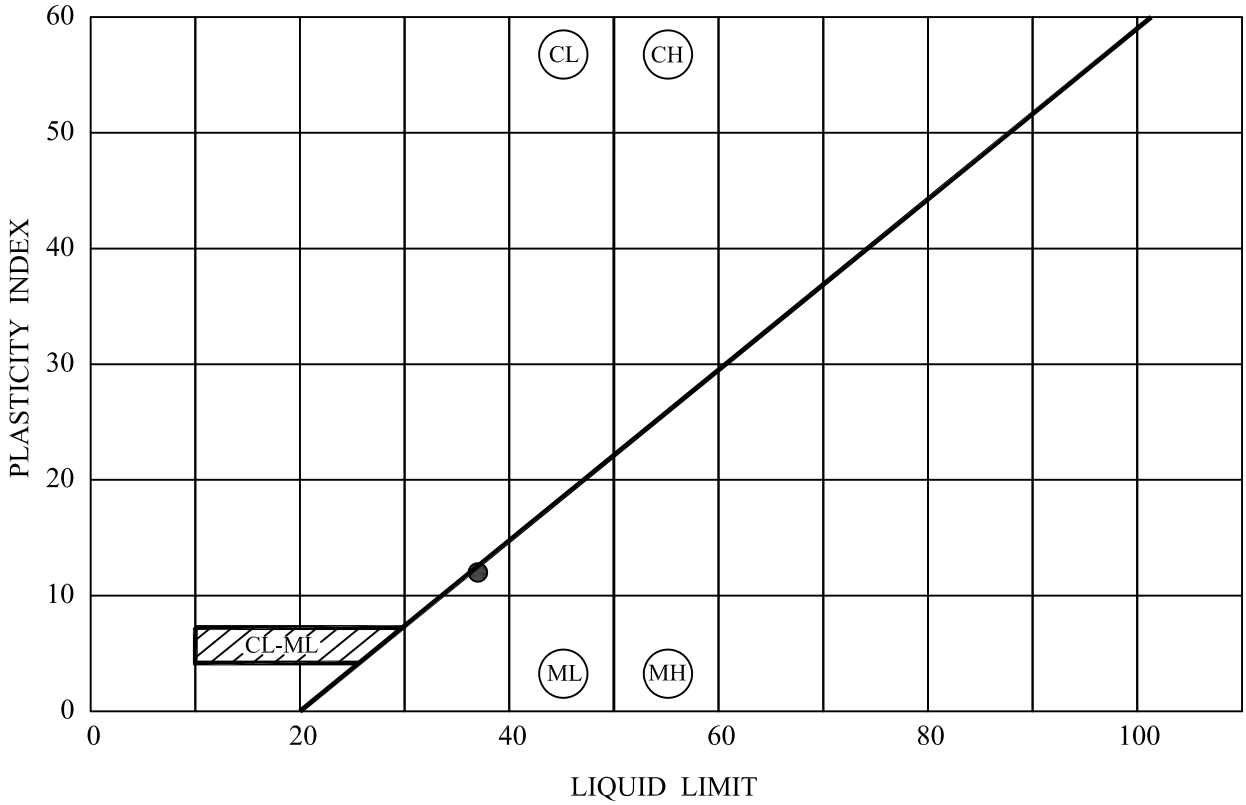
Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 07/21/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B8



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	15-3	5.0	37	25	12	Orange Brown SILT (ML) with Sand

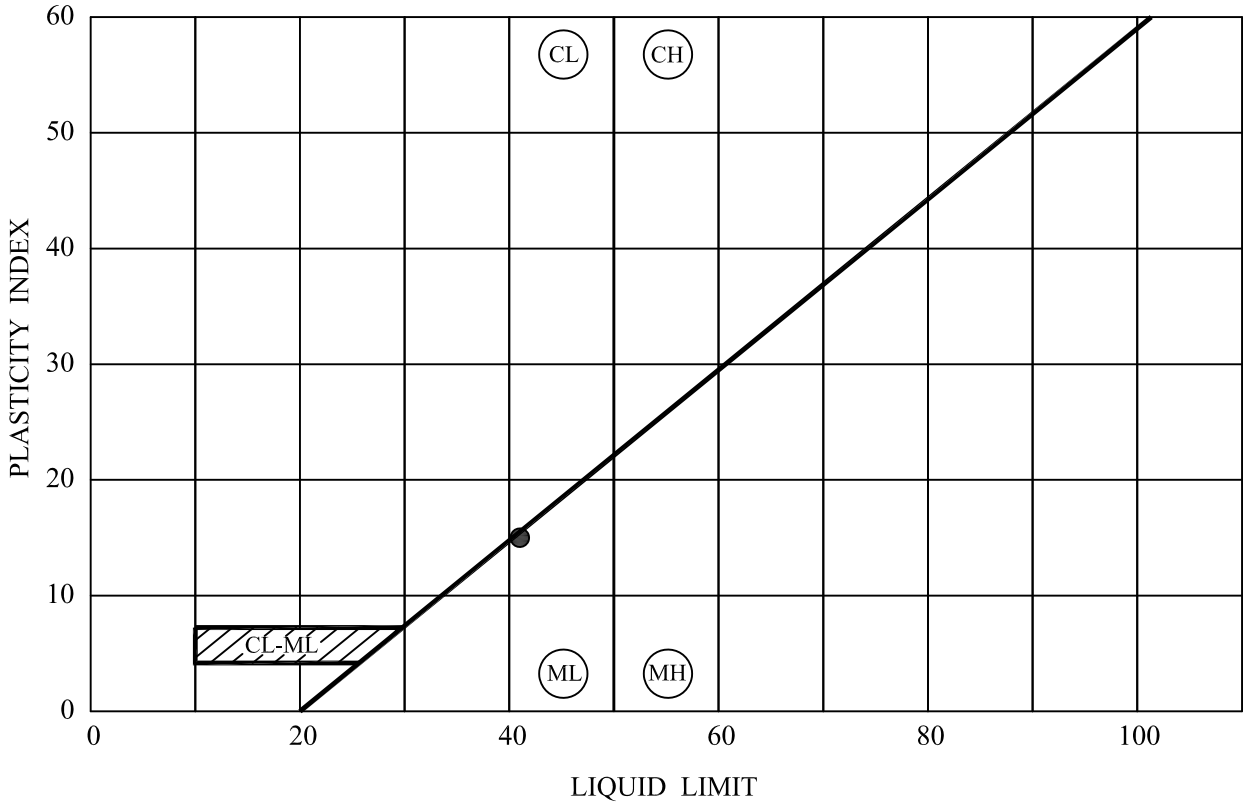
Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 06/23/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B9



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	16-1	1.0	41	25	16	Brown Clayey SILT (ML) with some Sand

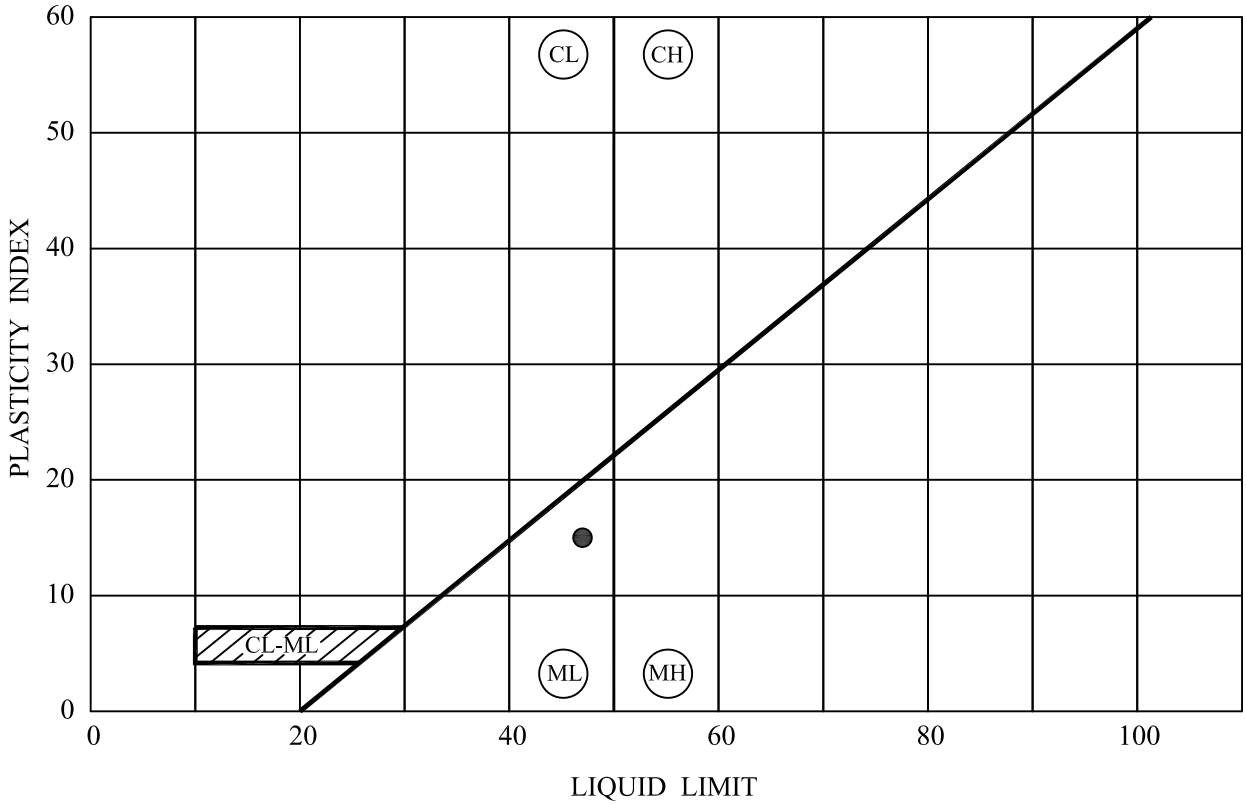
Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 06/23/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B10



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	23-1	1.0	47	32	15	Brown CLAYEY SILT (ML) with Sand

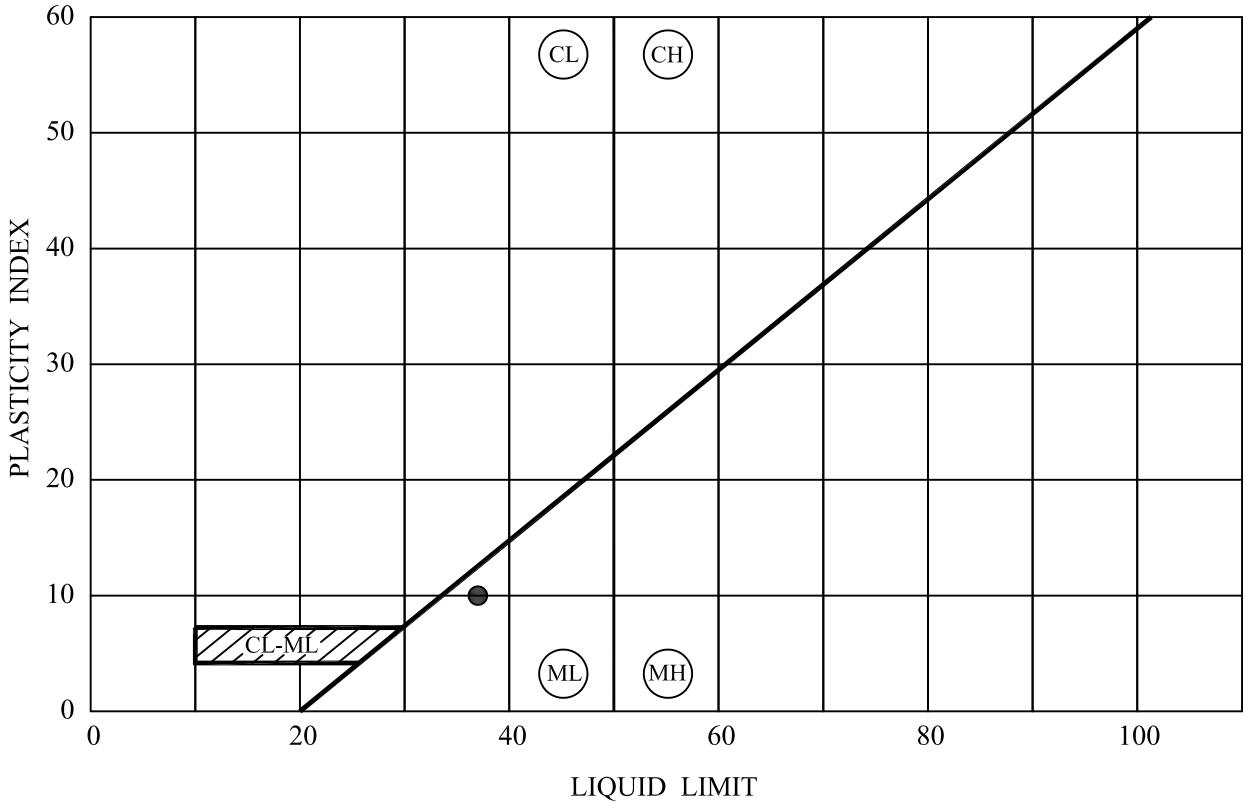
Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 07/21/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B11



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	27-2	3.0	37	27	10	Orange Brown SILT (ML) with trace Sand

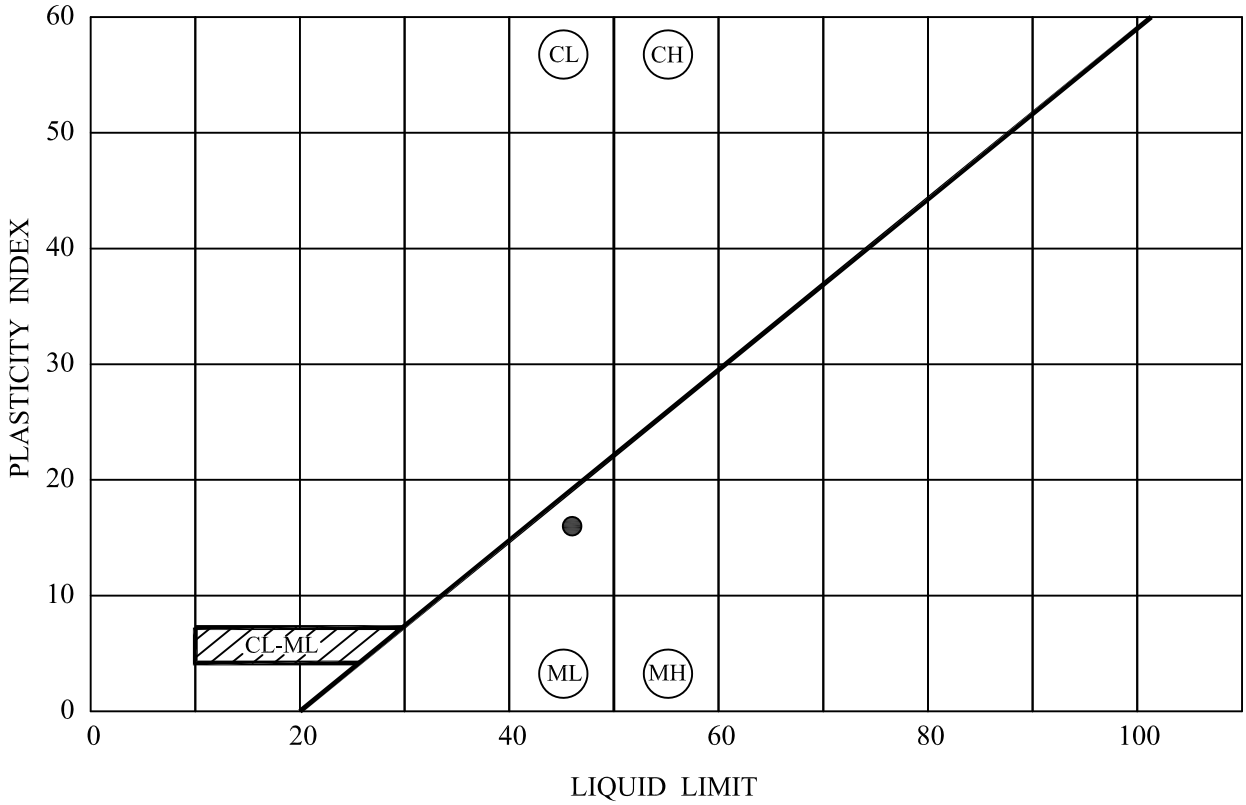
Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 06/29/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B12



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	28-1	1.0	46	30	16	Brown Clayey SILT (ML) with some Sand

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PROJECT NO. 24024.01
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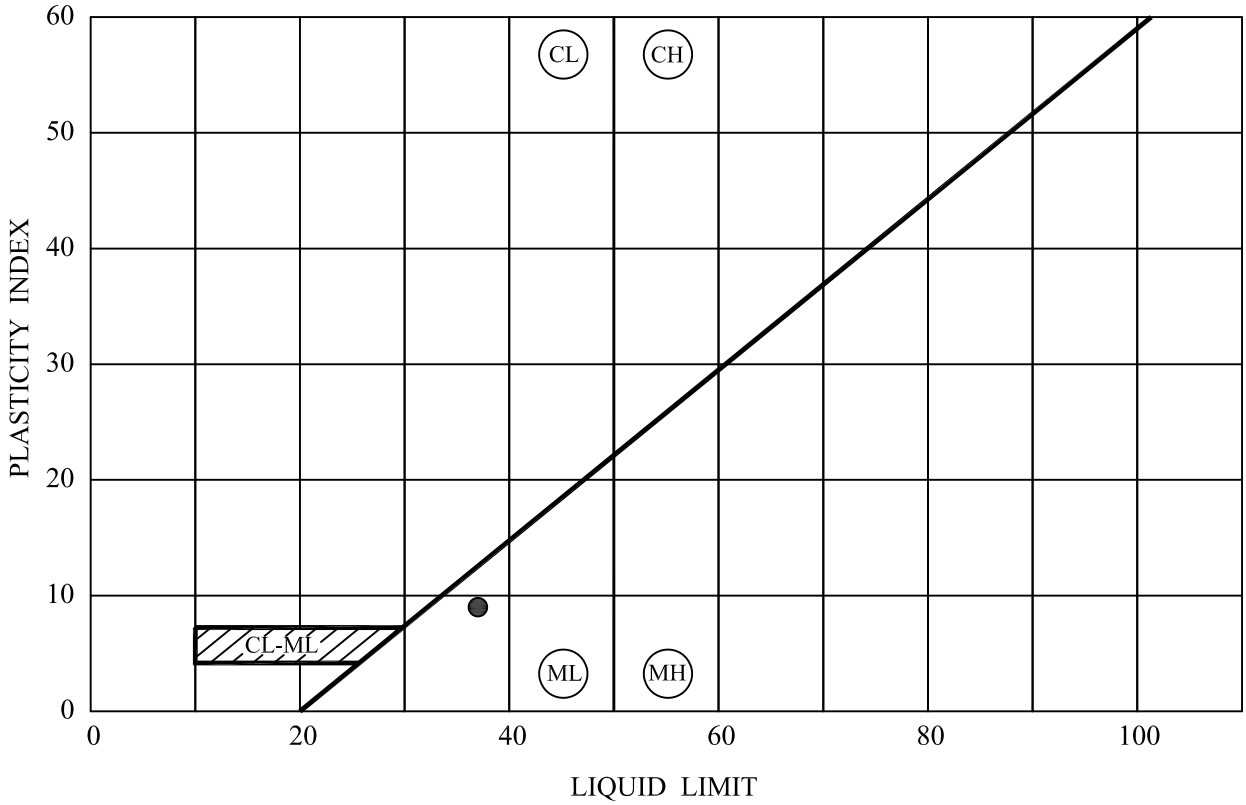
HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B13



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	25-4	8.0	37	28	9	Orange Brown SILT (ML) and Sand

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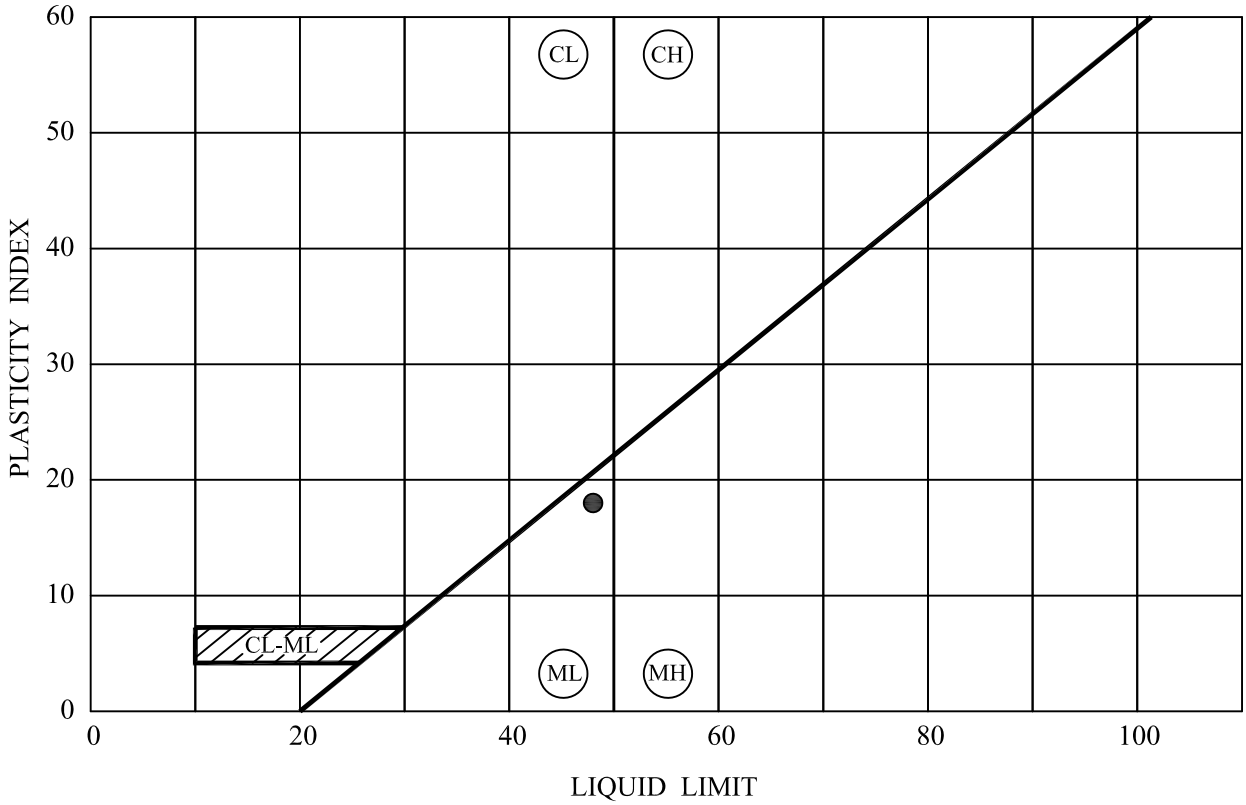
PROJECT NO. 24024.01
DATE 06/29/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B14



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	31-1	1.0	48	32	16	Brown CLAYEY SILT (ML) with some Sand

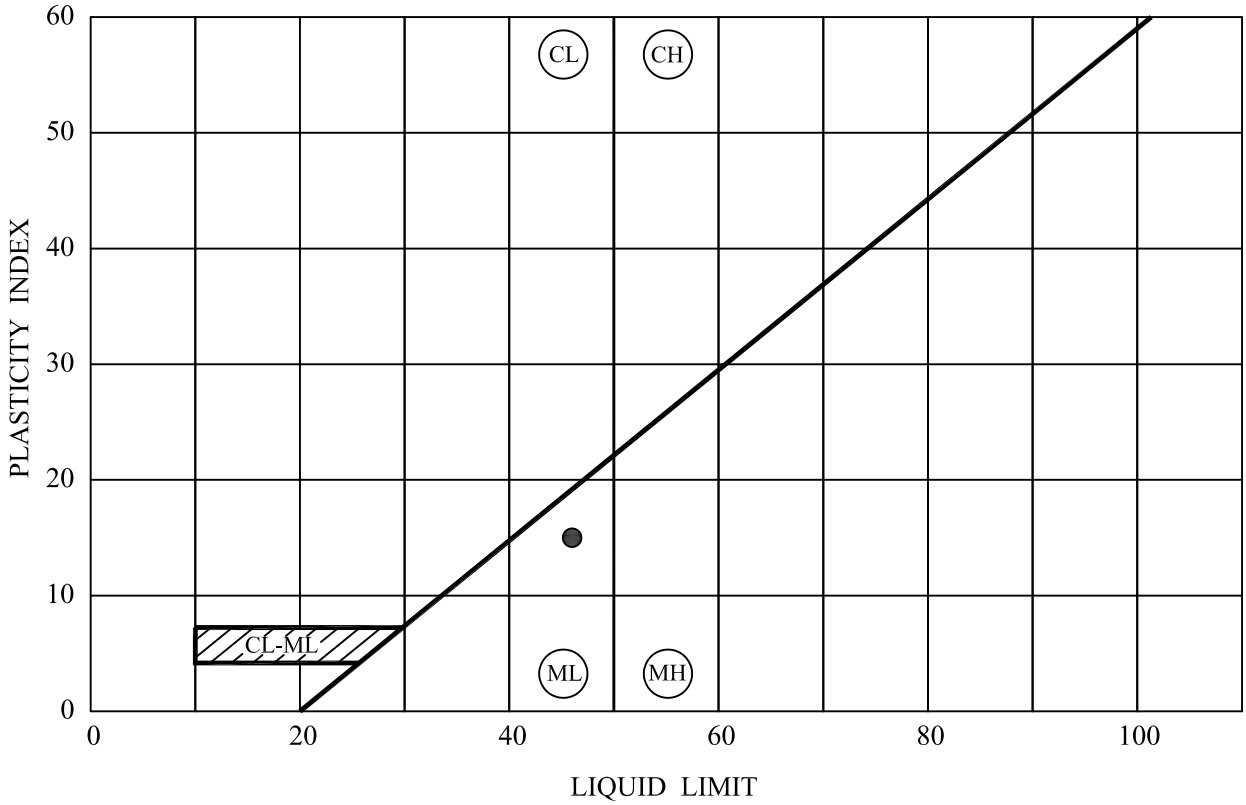
Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 07/16/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B15



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	35-1	1.0	46	31	15	Brown CLAYEY SILT (ML) with some Sand

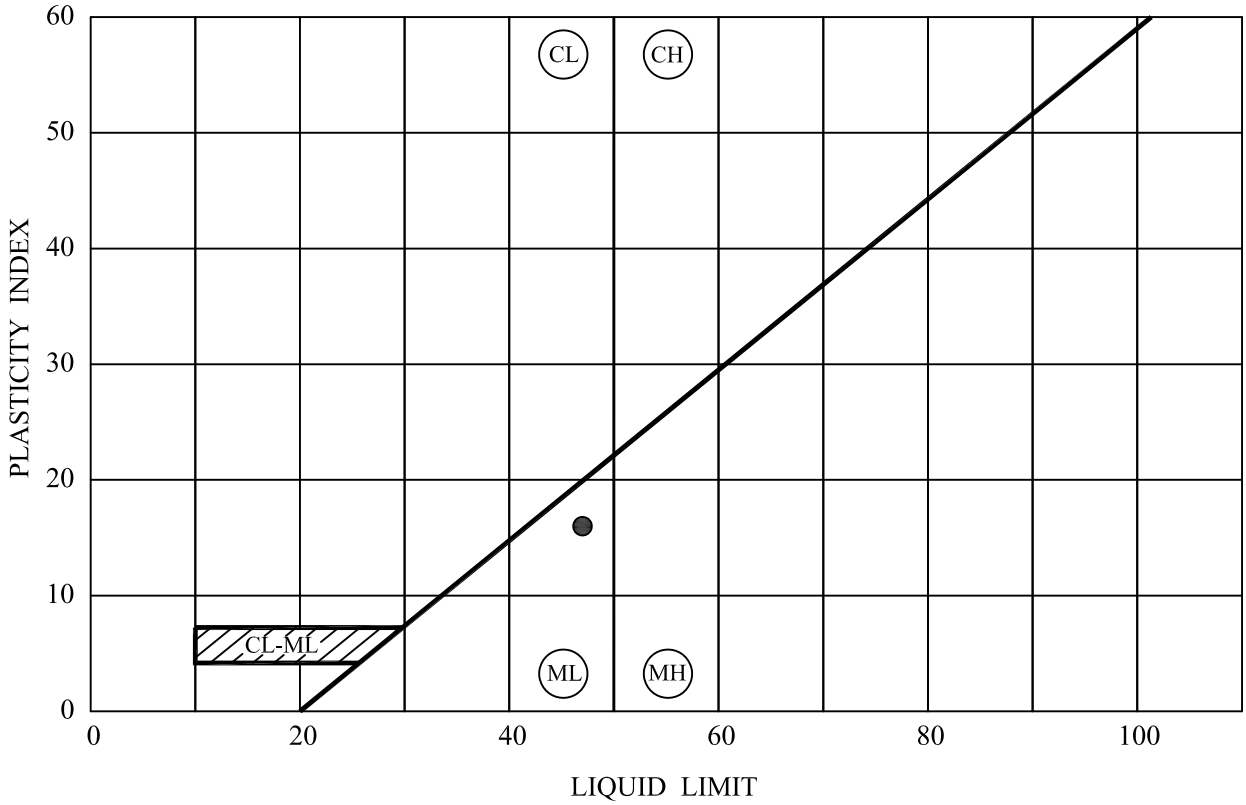
Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 07/16/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B16



	Sample ID	Depth (ft)	LL	PL	PI	Classification
●	36-1	1.0	47	31	16	Brown CLAYEY SILT (ML) with Sand

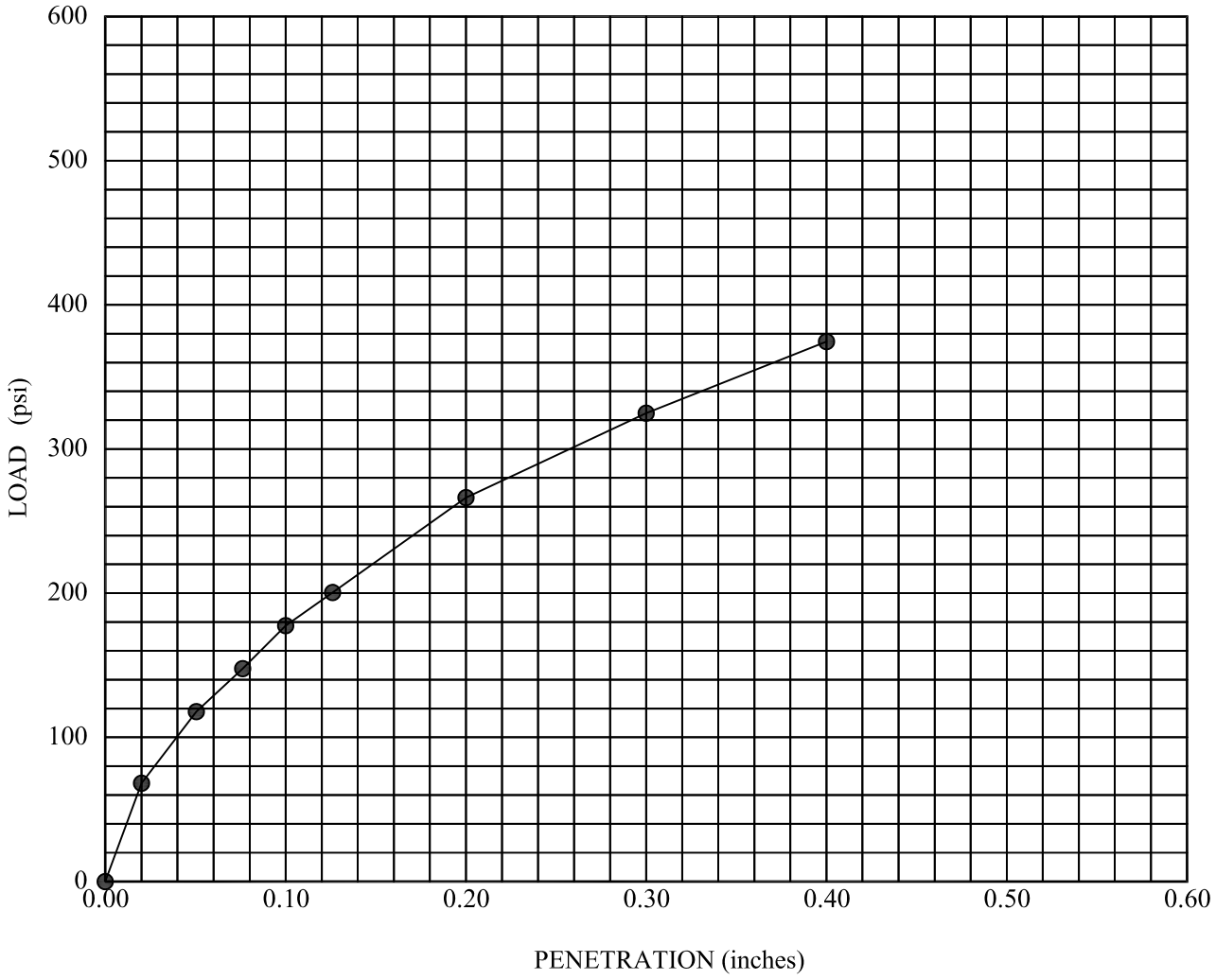
Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 07/29/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

PLASTICITY INDEX

FIGURE
B17



	Sample Identification	Classification	CBR	% Comp.	Opt. Den.	Opt. % MC	% Swell	LL	PI
●	A	Brown CLAYEY SILT (ML)with some Sand	18	98	96	29	0.3	47	16

Hawaii Geotechnical Consulting, Inc.

PROJECT NO. 24024.01
DATE 08/06/2024

HOONANI VILLAGE
KAHULUI, MAUI, HAWAII

COMPACTION CURVE

FIGURE
B18

APPENDIX C
Percolation Testing

APPENDIX C
PERCOLATION TESTING

A total of two percolation tests were performed within the proposed WWTP system leach field site. The percolation tests were performed at depths of 36 inches following the State of Hawaii Department of Health – Wastewater Branch testing method.

Approximately 1 inch of clean ¾-inch gravel was placed at the bottom of an 9-inch diameter, 36 inch deep hand excavated hole. Step D of the procedure for other type (non-granular) soils was used to perform the percolation test, as a 12 inch head of water did not seep away in under 10 minutes twice. After a minimum of 4 hours of presoaking, maintaining a 12-inch head, the hole was allowed to swell for at least 12 hours. After swelling, water was then added to 6 inches above the gravel and allowed to percolate. The water drop was recorded every 30-minute time interval for 4 hours. The final drop used to calculate the percolation rates.

A senior engineer with HGC performed the percolation test and maintained a log of the time and water drop intervals.

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DEPARTMENT OF HEALTH – WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS) – SITE EVALUATION/PERCOLATION TEST
(PERCOLATION TEST NO. 1 - EAST)

Date/Time: July 29, 2024 Test Performed by: Hawaii Geotechnical Consulting, Inc.

Owner: Ho'onani Development, LLC TMK: --

Elevation:	Unknown	Feet
Depth to Groundwater Table:	>10	feet below grade
Depth to Bedrock (if observed):	Unknown	feet below grade
Diameter of Hole:	9.0	inches
Depth to Hole Bottom:	36	inches below grade

Depth, inches below grade	Soil Profile (color, texture, other)
0-18	Brown Clayey Silt with some Sand, Soft
18-108	Orange Brown Silt with some Sand, Hard

PERCOLATION READINGS:

Time 12 inches of water to seep away: 101 minutes

Time 12 inches of water to seep away: 47 minutes

Check one:

_____ Percolation tests in sandy soils, recorded time intervals and water drops at least every 10 minutes for at least 1 hour.

X Percolation tests in non-sandy soils, presoaked the test hole for at least 4 hours. Recorded time intervals and water drops at least every 10 minutes for 1 hour of time for the first 6 inches to seep away in greater than 30 minutes recorded time intervals and water drops at least every 30 minutes for 4 hours or until 2 successive drops do not vary by more than 1/16 inch.

Time Interval (min)	Drop in Inches	Time Interval (min)	Drop in Inches	Time Interval (min)	Drop in Inches
30	2-5/8	30	2-5/8		
30	2-3/16	30			
30	2-1/2				
30	2-5/8				

Percolation Rate (time/final water level drop): 11.41 minute/inch

As the engineer responsible for gathering and providing site information and percolation test results, I attest to the fact that above site information is accurate and that the site evaluation was conducted in accordance with the provisions of Chapter 11-62, "Wastewater Systems" and the results were acceptable. I also attest that three feet of suitable soil exists between the bottom of the soil absorption system and the groundwater table or any other limiting layer.

Engineer's Signature/Stamp

ROBERT M. GIBBENS
LICENSED PROFESSIONAL ENGINEER
No. 10094-C
HAWAII, U.S.A.

July 29, 2024

License Expires 04/30/2026

DEPARTMENT OF HEALTH – WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS) – SITE EVALUATION/PERCOLATION TEST
(PERCOLATION TEST NO. 2 - WEST)

Date/Time: July 29, 2024 Test Performed by: Hawaii Geotechnical Consulting, Inc.

Owner: Ho'onani Development, LLC TMK: --

Elevation:	Unknown	Feet
Depth to Groundwater Table:	>10	feet below grade
Depth to Bedrock (if observed):	Unknown	feet below grade
Diameter of Hole:	9.0	inches
Depth to Hole Bottom:	36	inches below grade

Depth, inches below grade	Soil Profile (color, texture, other)
0-18	Brown Clayey Silt with some Sand, Soft
18-108	Orange Brown Silt with some Sand, Hard

PERCOLATION READINGS:

Time 12 inches of water to seep away: 136 minutes

Time 12 inches of water to seep away: 100 minutes

Check one:

_____ Percolation tests in sandy soils, recorded time intervals and water drops at least every 10 minutes for at least 1 hour.

X Percolation tests in non-sandy soils, presoaked the test hole for at least 4 hours. Recorded time intervals and water drops at least every 10 minutes for 1 hour of time for the first 6 inches to seep away in greater than 30 minutes recorded time intervals and water drops at least every 30 minutes for 4 hours or until 2 successive drops do not vary by more than 1/16 inch.

Time Interval (min)	Drop in Inches	Time Interval (min)	Drop in Inches	Time Interval (min)	Drop in Inches
30	4-15/16	30	5-1/16		
30	5-1/4				
30	5				
30	5-1/16				

Percolation Rate (time/final water level drop): 5.93 minute/inch

As the engineer responsible for gathering and providing site information and percolation test results, I attest to the fact that above site information is accurate and that the site evaluation was conducted in accordance with the provisions of Chapter 11-62, "Wastewater Systems" and the results were acceptable. I also attest that three feet of suitable soil exists between the bottom of the soil absorption system and the groundwater table or any other limiting layer.

Engineer's Signature/Stamp

ROBERT M. GIBBENS
LICENSED PROFESSIONAL ENGINEER
No. 10094-C
HAWAII, U.S.A.

July 29, 2024

License Expires 04/30/2026

APPENDIX ‘K’ – AGRICULTURAL IMPACT ASSESSMENT

HO'ONANI VILLAGE: AGRICULTURAL IMPACTS

HO'ONANI VILLAGE: AGRICULTURAL IMPACTS

PREPARED FOR:

Ho'onani Development, LLC

PREPARED BY:

Plasch Econ Pacific LLC

February 2026

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APPENDIX

State and County Goals, Objectives, Policies and Guidelines Related to Agricultural Lands A-1

ACRONYMS AND ABBREVIATIONS

A&B	Alexander & Baldwin, Inc.
ALISH	Agricultural Lands of Importance to the State of Hawai‘i
ALUM	Agricultural Land Use Maps
AMI	Area Median Income
Applicant	Ho‘onani Development, LLC
County	County of Maui
CWRM	State Commission on Water Resource Management
diversified agriculture	crops other than sugarcane or pineapple
EaA	Ewa Silty Clay Loam, 0 to 3 percent slopes
HC&S	Hawaiian Commercial & Sugar Co.
HHFEC	Hawai‘i Housing and Finance Development Corporation
HRS	Hawai‘i Revised Statutes
IAL	Important Agricultural Lands
Kona wind	south wind
LSB	Land Study Bureau
MIP	Maui Island Plan
mph	miles per hour
NRCS	Natural Resources Conservation Service
plantation agriculture	sugarcane and/or pineapple
Project	Ho‘onani Village
SLUC	State Land Use Commission
SMA	Special Management Area
State	State of Hawai‘i
TMK	Tax Map Key
U.S.	United States
UGB	Urban Growth Boundary
UH	University of Hawai‘i

EXECUTIVE SUMMARY

1. PROPOSED DEVELOPMENT

Ho‘onani Development, LLC proposes the development of Ho‘onani Village (the Project), a high-density, master-planned, mixed-use community on 166.512 acres in Kahului. The preliminary conceptual plan for Ho‘onani Village features approximately 1,608 multifamily units to be made available to households earning 140% of the Area Median Income (**AMI**) or below. One-third of these units are proposed to be made available to households earning 60% or below of the AMI. Other proposed land uses include commercial and retail spaces, recreation/entertainment areas, offices, industrial spaces, and civic spaces.

2. LAND CLASSIFICATIONS

Currently, the Project site is within the State Agricultural District, nearly all of the site is designated Agriculture in County plans, and the entire site is zoned Agriculture. Project development will require appropriate State and County reclassifications.

3. AGRICULTURAL CONDITIONS

The Project site has (1) soils that have severe limitations which reduce the choice of plants, require special conservation practices, or both; (2) good soil ratings with two of the three rating systems; (3) gentle slopes: (4) favorable climatic conditions (e.g., high solar radiation); (5) no access to affordable irrigation water; and (6) good access to nearby markets and shipping terminals.

The 166.5-acre Project site is no longer suitable for farming due to a lack of affordable water for irrigating crops.

4. PAST, CURRENT AND SURROUNDING LAND USES

From the late 1800s to 2016, the Project site was used to grow sugarcane. In December 2016, Alexander & Baldwin, Inc. (**A&B**) closed the Hawaiian Commercial & Sugar Co. (**HC&S)** sugarcane plantation and ceased all sugar operations in Central Maui.

Since 2016, the Project site has been left uncultivated.

Current land uses surrounding the Project site are as follows:

— To the northwest: commercial, including “big box” stores, and smaller retail shops and restaurants.

— To the north/northeast: agricultural lands then the airport.

— To the south and east: agriculture.

— To the west and southwest: agriculture, heavy industry, and public/quasi-public and recreational uses.

5. IMPACTS ON AGRICULTURE

a. Impacts on On-site Agricultural Operations

The Project will not have any impacts on current on-site farm or ranch operations, as none exist.

b. Impacts on Nearby Agricultural Operations

Impacts

Mahi Pono has planted crops to the east, south, and west of the Project site. These include citrus orchards, row crops, and forage grasses for future cattle grazing. The nearest citrus fields are approximately a quarter mile east (upwind) of the Project site, while the nearest row-crop fields are approximately a quarter mile to the southwest (downwind).

Residential and other urban uses are commonly found near farm operations on all of the major Hawaiian Islands. Nevertheless, due to the proximity of agricultural operations, Project residents, workers, and customers may occasionally experience noise during planting and harvesting, wind-blown chemicals, wind-blown dust from plowing fields for row crops when the plowing occurs during strong Kona winds (south winds), etc. In turn, nuisance complaints could lead to community pressure to restrict nearby agricultural operations, possibly including efforts to shorten hours of operations, cease spraying of chemicals during strong winds, cease plowing fields during strong Kona-winds, etc.

Mitigating Measures

Recommended mitigating measures to reduce possible impacts from agricultural operations, nuisance complaints over these impacts, and restrictions on agricultural operations due to the complaints include the following:

— Design the Project to avoid or reduce impacts from agriculture

This may include (1) landscaping, berms, and walls designed to reduce noise, wind-blown chemicals and dust, etc.; (2) sound proofing of building walls as necessary to minimize noise, and (3) windows designed to reduce noise and block wind-blown chemicals and dust, along with air conditioning of spaces isolated from cooling tradewinds.

— Provide notice to new Project tenants that agricultural operations are nearby

The notice about nearby agricultural operations should be provided early in the process before contracts are signed, and should include information on possible impacts from agricultural operations.

— Provide information on Hawaii's Right to Farm Act

Information on the Right to Farm Act should be provided early in the process before contracts are signed. The Right to Farm Act (Hawai'i Revised Statutes §165-4) stipulates that: "No court, official, public servant, or public employee shall declare any farming operation a nuisance for any reason if the farming operation has been conducted in a manner consistent with generally accepted agricultural and management practices. There shall be a rebuttable presumption that a farming operation does not constitute a nuisance."

c. Impacts on the Growth of Crop Farming

The Project will result in the redistribution of approximately 166.5 acres from the State Agricultural District to the Urban District. However, this redistricting will have no impact on the growth of commercial crop farming on Maui, as the lack of affordable irrigation water renders this land unsuitable for cultivating commercial crops.

6. OFFSETTING BENEFITS

Repurposing about 166.5 acres from agriculture to urban uses will provide the following Project benefits:

— Benefits from construction activity

- Construction jobs and payroll associated with Project development.
- Indirect jobs and payroll generated by the purchase of goods and services by construction companies and families of construction workers.
- County tax revenues (excise tax surcharge, etc.) and State tax revenues (excise taxes, personal income taxes, corporate income taxes, etc.) paid by construction companies and workers, and by companies and families that are supported by construction activity.

— Benefits from operations at full development

- Affordable housing for residents.
- Goods and services provided by on-site restaurant, retail, office, and industrial activities.
- Recreational amenities (amphitheater, parks, sports fields, etc.).
- On-site jobs and payroll provided by on-site businesses.
- Off-site jobs and payroll generated by the purchase of goods and services by on-site families and businesses.

- County tax revenues (excise tax surcharge, property taxes, etc.) and State tax revenues (excise taxes, personal income taxes, corporate income taxes, etc.) paid by Project property owners, on-site families, on-site businesses, and off-site business that provide goods and services in support of on-site families and businesses.

7. CONSISTENCY WITH STATE AND COUNTY POLICIES

a. Availability of Lands for Agriculture

State and County plans and policies call directly or implicitly for preserving the economic viability of plantation agriculture (sugarcane and pineapple) and promoting the growth of diversified agriculture (i.e., non-plantation agriculture). To accomplish this, an adequate supply of agriculturally suitable lands and water must be assured.

Regarding plantation agriculture, sugarcane is no longer grown on the Project site or nearby since Hawaiian Commercial & Sugar Co. ceased all sugar operations on Maui in 2016.

Regarding diversified agriculture, the Project site has no recent history of being used for growing crops other than sugarcane, nor is affordable water available to irrigate potential crops.

b. Conservation of Agricultural Lands

In addition to the above, State and County policies call for conserving and protecting prime agricultural lands, including protecting farmland from urban development.

However, the 166.5-acre Project site is no longer suitable for farming due to a lack of affordable water for irrigating crops.

c. Redesignation from Agricultural to Urban/Rural

Discussions in the *Agriculture State Functional Plan* recognize that redesignation of lands from Agricultural to Urban and/or Rural should be allowed "… upon a demonstrated change in economic or social conditions, and where the requested redesignation will provide greater benefits to the general public than its retention in …agriculture;" that is, when an "overriding public interest exists."

The enormous contraction of plantation agriculture and the resulting increase in the supply of land that came available for diversified crop farming constitutes a major change in economic conditions. Moreover, the Project will provide community benefits (homes, goods and services, recreational amenities, jobs, payroll, tax revenues, etc.) that far exceed the benefits of leaving the land in agriculture (no current agricultural jobs).

d. Important Agricultural Lands

None of the Project area is currently designated as Important Agricultural Lands (IAL), and future designation is highly improbable. The area in the south-west corner of the Project site that is within the County's UGB is not eligible for IAL designation. The remaining lands do not meet the definition of IAL due to the lack of affordable water for irrigating crops. Specifically, these lands: (1) are incapable of producing sustained high agricultural yields without water, (2) contribute negligibly to the State's economic base, and (3) are not needed to promote the expansion of agricultural activities and income for the future.

e. County of Maui Land-Use Plans

Nearly all of the Project site is outside the Urban Growth Boundary of the Maui Island Plan, nearly all is designated Agriculture in the Wailuku-Kahului Community Plan, and all of the land is zoned Agriculture by the County. Development of the Project will require appropriate changes to these plans and to the zoning.

HO‘ONANI VILLAGE:
IMPACTS ON AGRICULTURE

1. INTRODUCTION

Ho‘onani Development, LLC (the **Applicant**) proposes the development of Ho‘onani Village (the **Project**), a high-density, master-planned, mixed-use community.

This report addresses the impacts of the Project on agriculture. The material below gives information about the Project, land designations, the agricultural conditions of the Project’s agricultural lands, past and current agricultural uses, the impact of the Project on agriculture, benefits of the Project that would offset adverse agricultural impacts, and consistency of the Project with State of Hawai‘i (**State**) and County of Maui (**County**) agricultural policies. Figures are at the end of the report. The Appendix provides a summary of State and County goals, objectives, policies and guidelines related to agricultural lands.

2. PROJECT INFORMATION

a. Project Location and TMK

The Project site is located in the Pu‘unēnē-Kahului area of Central Maui, Map Key (**TMK**) (2) 3-8-006:004 (see Figures 1 and 2). Pulehu Road runs adjacent to the Project site along the entire eastern boundary, and Hansen Road runs adjacent to the site along the southern boundary. The existing southern terminus of Pakaula Street stubs into the northern boundary of the site.

b. Project Acreage

The Project site encompasses approximately 166.512 acres.

c. Project Plans

The Project is envisioned as a high-density, master-planned, mixed-use community with approximately 1,608 multi-family residential housing units, along with a blend of commercial, office, retail, restaurant, entertainment, light industrial, and hospitality uses. The Project’s development will be phased over 17 years. An overview of the Project’s mixed uses and phasing can be seen in the Preliminary Site Plan as shown in Figure 3.

All the housing units are intended to be affordable rental units offered to households earning 140% of area median income (AMI) or below for a minimum of 10 years. As defined by the State of Hawai‘i and the Hawai‘i Housing and Finance Development Corporation (**HHFDC**), 140% AMI is the threshold for affordable housing. The Applicant is

proposing to have one third of the units reserved for renters at 60% AMI or below. Also, the Applicant intends to work with HHFDC to pursue a HRS 201H-38 Affordable Housing Approval and Low Impact Housing Tax Credit (LIHTC) funds for Project cost savings. The specific breakdown of AMI levels may be adjusted based on demand and need at the time of development and potential for-sale units may be considered in the future. The 201H application process is being utilized by the applicant to reduce costs through exemptions such as entitlement application fees, expedite the entitlement process to begin construction as soon as possible, and to pursue uses such as hospitality spaces that are not allowed uses in the current and proposed County zoning designation for the Project site.

Access to the Project site is planned to be provided from Pūlehu Road and Hansen Road, both of which are County roadways. Improvements to these County roads will be completed to meet the requirements of the County of Maui's Street Design Manual. Infrastructure to support the Project will be installed within portions of these County rights-of-way. Within the Project, an internal roadway network will connect individual uses within the Project. Pedestrian and bicycle circulation will be created within the Project with on-street sidewalks and a system of multi-use paths to connect the various uses and to emphasize multi-modal transportation within the development. Additional infrastructure improvements, including drainage management in an onsite detention basin, the potential construction of an onsite wastewater treatment plant, and an offsite water system are also proposed.

The following objectives guide the vision for Ho'onani Village:

— Provision of housing opportunities for Maui residents across a range of income levels near existing services and job opportunities.

— Provision of commercial business and light industrial spaces for local businesses to operate and expand.

— Creation of an authentic community and gathering place for Maui.

Development of the project is proposed to occur in multiple phases, each introducing specific residential, commercial, industrial, and hospitality uses in a coordinated manner. The phasing plan allows infrastructure, circulation, and utilities to be extended systematically across the site while delivering severely needed residential units early in the Project's buildout. The bicycle and pedestrian circulation elements will be installed within the phases and throughout the site as the commercial uses are constructed and become available for use by the residents.

The following summarizes each phase and its planned program of uses:

— Phase 1: Residential (January 2028-June 2029)

Phase 1 consists of approximately 268 multifamily rental units built at a density of 27 dwelling units per acre. This phase initiates the residential neighborhood framework and establishes key internal roadways and utility extensions needed to support subsequent phases. Additionally, the proposed off-site water

system will have to be constructed and in place to serve this initial phase. The sewer system and drainage improvements will also have to be installed to manage the drainage, and sewage flows for Phase 1. Street improvements will be minimized to the maximum extent possible to limit construction costs as the initial phase incorporates the majority of the construction costs for the off-site utility infrastructure. This allows the applicant to emphasize expediting the construction timeline to get the residential units available as soon as possible.

— Phase 2: Residential & Commercial (July 3020-December 2031)

Phase 2 includes an additional 268 residential units at the same density as Phase 1, along with 5.1 acres of commercial space. These commercial pads are positioned along Pūlehu Road to serve both early residents and surrounding neighborhoods.

— Phase 3: Residential & Light Industrial (January 2033-June 2034)

This phase introduces another 268 residential units and approximately 9.5 acres of light industrial space. The industrial component is located along the western edge of the property, aligning with existing industrial uses near Hansen Road and the former sugar mill.

— Phase 4: Residential & Office (July 2035-December 2036)

Phase 4 adds 268 more residential units and 4.6 acres of office space, responding to demand for employment opportunities in Central Maui. This phase strengthens the "live-work" balance by placing jobs within walking proximity to housing.

— Phase 5: Residential & Commercial / Entertainment (July 2035-December 2036)

Phase 5 includes 268 additional residential units and a significant mixed commercial area incorporating retail, restaurant, food hall, and entertainment uses totaling approximately 11.2 acres. These facilities help establish the Project's commercial identity and serve both on-site residents and the wider island community.

— Phase 6: Residential (January 2037-June 2038)

Phase 6 completes the primary residential buildout with 268 additional units, supporting the Project's intended role in addressing Maui's regional housing demand.

— Phase 7: Hospitality (January 2037-June 2038)

Phase 7 introduces a proposed 240-key hospitality development, designed as a dual-brand hotel with shared amenities. This phase supports visitor needs near the airport and commercial centers while generating local employment opportunities.

— Phase 8: Light Industrial & Office (July 2039-December 2040)

Phase 8 includes approximately 13.9 acres of light industrial space and 5.4 acres of office space, expanding economic and employment opportunities and complementing the adjacent Maui Business Park corridor.

— Phase 9: Recreation/Entertainment, Civic, and Community Uses (January 2041-June 2042)

Phase 9 incorporates major recreation and entertainment uses. Additional parcels are designated for future civic or commercial uses totaling roughly 10.4 acres, allowing flexibility to serve long-term community needs.

3. LAND CLASSIFICATIONS

Current land classifications for the Project site and the proposed changes are as follows:

— **State of Hawaii**

- State District
  + Current: Agricultural (see Figure 4).
  + Proposed: Urban.
- Important Agricultural Lands (**IAL**), State of Hawai‘i.
  + Current: none of the Project site is classified as IAL.
  + Proposed: no change.

— **County of Maui**

- Subdivision
  + Current: the Project site is part of a larger parcel.
  + Proposed: a subdivision application has been filed to subdivide the existing parcel into five lots (E-1 through E-5), with Ho‘onani Village proposed for the new lot E-1.
- Maui Island Plan, Urban Growth Boundary (**UGB**)
  + Current: most of Project site is outside the UGB, but a small area in the southwest corner of the site is within the Boundary (see Figure 5).
  + Proposed: expand the UGB to include the Project site.
- Wailuku-Kahului Community Plan,
  + Current: Agriculture, with a small section of the southwest corner designated Heavy Industrial (see Figure 6).
  + Proposed: Community Plan Amendment to change the designation to Light Industrial, unless prior to the filing the Plan is updated to accommodate the filing.

- Zoning
  + Current: Agriculture (see Figure 7).
  + Proposed: Light Industrial.
- Special Management Area (**SMA**)
  + Current: outside the SMA.
  + Proposed: no change.
- Shoreline Setback
  + Current: outside the Shoreline Setback area.
  + Proposed: no change.

A 201H application will be submitted to HHFDC to help expedite the housing development as much as possible.

4. AGRICULTURAL CONDITIONS

a. Soil Type and Characteristics

According to the Natural Resources Conservation Service (**NRCS**) of the U.S. Department of Agriculture, formerly known as the Soil Conservation Service, the Project site is comprised of Pulehu-Ewa Jaucas Association (see Figure 8). NRCS characterizes the soils of this association as deep, nearly level to moderately sloping, well-drained and excessively drained, moderately fine textured to coarse-textured subsoil or underlying material. These soils are located on alluvial fans and in basins.

As shown in Figure 9, the specific soil type underlying nearly all of the Project site is **EaA**: Ewa silty clay loam, 0 to 3 percent slopes. Consistent with the above, the EaA soils series consists of deep, well drained soils which formed in alluvium weathered from basaltic rock. Runoff from EaA soils is very slow and the erosion hazard is no more than slight ..This soil is used for sugarcane and pasture.

The Project site was recently used for the cultivation of sugarcane which left the entire site with approximately 12 to 30 inches of agriculturally disturbed soil.

b. Soil Ratings

Three classification systems are commonly used to rate Hawai'i soils: (1) Land Capability and Pasture Groupings, (2) Agricultural Lands of Importance to the State of Hawai'i, and (3) Overall Productivity Rating.

<u>Land Capability and Pasture Groupings (NRCS Rating)</u>

NRCS's 1972 Land Capability Grouping rates soils according to eight levels, ranging from the highest classification level "I" to the lowest "VIII."

If irrigated, the soil rating for EaA is **IIIe**. Class III soils have severe limitations that reduce the choice of plants, require special conservation practices, or both. Subclass IIIe soils are subject to severe erosion if they are cultivated and not protected.

Agricultural Lands of Importance in the State of Hawai'i (ALISH)

ALISH ratings were developed in 1977 by the NRCS, University of Hawai'i (**UH**) College of Tropical Agriculture and Human Resources, and the State of Hawai'i, Department of Agriculture. This system classifies land into three broad categories: (a) "**Prime**" agricultural land which is land that is best suited for the production of crops because of its ability to sustain high yields with relatively little input and with the least damage to the environment; (b) "**Unique**" agricultural land which is non-Prime agricultural land used for the production of specific high-value crops (e.g., taro); and (c) "**Other**" agricultural land which is non-Prime and non-Unique agricultural land that is important to the production of crops. Agricultural land that is not rated in any of these three categories is labeled "**Not Classified**" due to poor agricultural quality, and/or inability to produce high-value crops or important crops.

As shown in Figure 10, the entire Project site is comprised of soils rated as "**Prime**."

Overall Productivity Rating (LSB Rating)

In 1967, the UH Land Study Bureau (**LSB**) developed the Overall Productivity Rating, which classifies soils according to five levels, with "**A**" representing the class of highest productivity and "**E**" the lowest.

As indicated in Figure 11, the Agricultural lands within the Project site have soils with the highest productivity rating of "**A**."

c. Elevations

The Project site ranges in elevation from about 50 feet to 80 feet.

d. Slope

The average slope within the Project site is about 1%.

e. Climatic Conditions

Like other areas in Hawai'i, Kahului has a mild semitropical climate that is due primarily to three factors: (1) Hawai'i's mid-Pacific location near the Tropic of Cancer, (2) the surrounding warm ocean waters that vary little in temperature between the winter and summer seasons, and (3) the prevailing northeasterly tradewinds that bring air having temperatures which are close to those of the surrounding waters.

Solar Radiation

The site receives considerable sunshine, with average daily insolation of about 500 calories per square centimeter per day.

Rainfall

Rainfall in Kahallui averages about 14 inches annually. Most of this rainfall occurs during the winter rainy season (October through April).

Temperatures

In Kahului, average monthly temperatures range from 65°F to 80°F in the winter (January), and 72°F to 87°F in the summer (August).

Winds

Prevailing surface winds are tradewinds that blow from the east at an average rate of 11.7 miles per hour (**mph**) in the Winter (January) and 15.8 mph in the summer (July).

f. Irrigation Water

Before the closing of sugarcane operations in 2016, the Project site and nearby fields were irrigated with a combination of brackish groundwater from large-capacity wells, surface water to reduce salinity, and water from Pu'unēnē Mill. However, none of these water sources are currently available to irrigate crops at the Project site. In particular, surface water from East Maui is no longer available for irrigating crops at the Project site because the State Commission on Water Resource Management (CWRM) reduced stream diversions in East Maui, and Mahi Pono needs all of the available surface water to irrigate its crops in Central Maui.

To enable crop farming at the Project site, one or more new groundwater wells would be necessary to provide irrigation water. However, obtaining approval from CWRM for such wells is unlikely due to the government's priority of using available potable water for residential and commercial purposes. Additionally, the water would be expensive for farming, particularly if brackish-water wells were approved. The estimated daily water requirement would be about 832,500 gallons, based on 5,000 gallons per acre for 166.5 acres. Alpha, Inc. estimates the development cost for two on-site wells and the irrigation system to be around $6 million, with an annual pumping and maintenance cost of approximately $200,000. Assuming financing with a 20-year loan at 6% interest, the resulting water cost would be approximately $2.36 per 1,000 gallons. Furthermore, water treatment to reduce salinity would increase the cost. In any case, the water would be prohibitively expensive for

most commercial farming operations. For comparison, farmers using water from the Maui Department of Water Supply pay $1.26 per 1,000 gallons, while most farmers relying on private water systems developed by sugarcane plantations pay less than $1 per 1,000 gallons.

In summary, while irrigation water could be made available, it is likely to be too expensive for most commercial farm operations.

g. Road Access

Currently, the Project site is reached via Pulehu Road and Hansen Road. Internally, Central Power Plant Road crosses and the property, and plantation roads provide access to former sugarcane fields.

h. Distance to Markets and Shipping Terminals

Trucking distances from the Project site to most of Kahului, the Kahului Harbor and the Kahului Airport are less than 2 miles. Kahului serves as the island's primary commercial, industrial, distribution and transportation center.

i. Summary of Agricultural Conditions

The Project site has (1) soils that have severe limitations which reduce the choice of plants, require special conservation practices, or both; (2) good soil ratings with two of the three rating systems; (3) gentle slopes: (4) favorable climatic conditions (e.g., high solar radiation); (5) no access to irrigation water; and (6) good access to nearby markets and shipping terminals.

The 166.512-acre Project site is no longer suitable for farming due to a lack of affordable water for irrigating crops.

5. PAST, CURRENT AND SURROUNDING LAND USES

a. Past Agricultural Use

From the late 1800s to 2016, the Project site was used to grow sugarcane. In December 2016, Alexander & Baldwin, Inc. (**A&B**) closed the Hawaiian Commercial & Sugar Co. (**HC&S)** sugarcane plantation and ceased all sugar operations in Central Maui.

b. Current Use of the Project Site

Since 2016, the Project site has been left uncultivated. Non-native grasses like Guinea grass and Buffel grass dominate, with aggressive plants like spiny amaranth, lion's tail, golden crown-beard, and tumbleweed taking over thin areas. Fleabane clumps also dot the grass fields.

c. Surrounding Land Uses

As shown in Figure 1, land uses surrounding the Project site are as follows:

- To the northwest: commercial, including “big box” stores, and smaller retail shops and restaurants.
- To the north/northeast: agricultural lands then the airport.
- To the south and east: agriculture.
- To the west and southwest: agriculture, heavy industry, and public/quasi-public and recreational uses.

6. IMPACTS ON AGRICULTURE

a. Impacts on On-site Agricultural Operations

The Project will not have any impacts on current on-site farm or ranch operations, as none exist.

b. Impacts on Nearby Agricultural Operations

Impacts

Mahi Pono has planted crops to the east, south, and west of the Project site. These include citrus orchards, row crops, and forage grasses for future cattle grazing. The nearest citrus fields are approximately a quarter mile east (upwind) of the Project site, while the nearest row-crop fields are approximately a quarter mile to the southwest (downwind).

Residential and other urban uses are commonly found near farm operations on all of the major Hawaiian Islands. On Maui, orchard crops are grown near urban areas of Kā‘anapali, Waihe‘e, Kahului, Pā‘ia, and Pukalani. On O‘ahu, diversified crops are grown near residential communities in ‘Ewa, Kunia, and Mililani. On Kaua‘i, coffee orchards are near ‘Ele‘ele. On the Big Island, orchard crops are grown near residential communities in Kona, Pāhala, and Kea‘au.

Due to the proximity of agricultural operations near the Project site, residents, workers, and customers may occasionally experience noise during planting and harvesting, wind-blown chemicals, wind-blown dust from plowing fields for row crops when the plowing occurs during strong Kona winds (south winds), etc. In turn, nuisance complaints could lead to community pressure to restrict nearby agricultural operations, possibly including efforts to shorten hours of operations, cease spraying of chemicals during strong winds, cease plowing fields during strong Kona-winds, etc.

Mitigating Measures

Recommended mitigating measures to reduce possible impacts from agricultural operations, nuisance complaints over these impacts, and restrictions on agricultural operations due to the complaints include the following:

— Design the Project to avoid or reduce impacts from agriculture

This may include (1) landscaping, berms, and walls designed to reduce noise, wind-blown chemicals and dust, etc.; (2) sound proofing of building walls as necessary to minimize noise, and (3) windows designed to reduce noise and block wind-blown chemicals and dust, along with air conditioning of spaces isolated from cooling tradewinds.

— Provide notice to new Project tenants that agricultural operations are nearby

The notice about nearby agricultural operations should be provided early in the process before contracts are signed, and should include information on possible impacts from agricultural operations.

— Provide information on Hawaii's Right to Farm Act

Information on the Right to Farm Act should be provided early in the process before contracts are signed. The Right to Farm Act (Hawai'i Revised Statutes §165-4) stipulates that: "No court, official, public servant, or public employee shall declare any farming operation a nuisance for any reason if the farming operation has been conducted in a manner consistent with generally accepted agricultural and management practices. There shall be a rebuttable presumption that a farming operation does not constitute a nuisance."

c. Impacts on the Growth of Crop Farming

The Project will result in the redistricting of land from the State Agricultural District to the Urban District. However, this redistricting, combined with other projects, will not affect the growth of commercial crop farming on Maui or statewide.

Statewide Acreage in Crop: 1960 to 2023

Figure 12 shows the total acreage of farmland in crops across the state from 1960 to 2023, along with the acreage for plantation crops (sugarcane and pineapple), and diversified crops (all other crops). Net acreages are shown, which is based on the actual amount of land farmed, and excludes fallow fields, storage areas, farm roads, etc.

Starting in the late 1960s, many sugarcane and pineapple plantations contracted and eventually closed, resulting in a decline of over 300,000 acres used for plantation agriculture. Taking advantage of the release of land from plantation agriculture, existing and new farmers planted more land in diversified crops. From the late 1960s to 2000, acreage in diversified crops increased at an average rate of about 800 acres per year, and reached about 50,000 acres in 2000. In the late 1990s, much of the production of vegetables and melons shifted from the Neighbor Islands to O'ahu because good farmland closer the Honolulu markets came available. After 2000, acreage in diversified crops remained at about 50,000 acres for nearly two decades. The 2017-to-2020 decline in diversified crop acreage was due to the

contraction by the seed companies, while the recent increase in acreage after 2020 was due to plantings by Mahi Pono on Maui. Out the 300,000 acres released by plantation agriculture, about 30,000 acres (10%) were replanted in diversified crops.

Currently, over 200,000 acres of former plantation land remain available for farming, most of which is now used for grazing cattle. The available farmland supply far exceeds the 56,000 acres dedicated to crop farming.

The lack of significant growth in diversified crop farming was largely due to increased competition from overseas resulting from technology and other advances that improved the delivery of fresh produce (faster, less spoilage, better coordination of supply to demand), along with trade agreements which increased food exports to the U.S. from low-cost producers. From a Hawai'i perspective, the market for profitable crops was limited. And in recent years, the growth of crop farming has been affected by the loss of water due to deteriorating irrigation systems and stream restoration.

Maui Farmland, Supply and Use

Supply of High-Quality Farmland, Maui

Maui Island has about 72,300 acres of high-quality farmland in the Agricultural District (see Figure 13). This accounting, which excludes land used for country estates and golf courses, is based on agricultural land that has one or more high soil ratings: an NRCS rating of I or II; an ALISH rating of Prime or Unique, and/or an LSB rating of A or B.

The Project will reduce the supply of high-quality farmland on Maui Island by 0.23% (166.512 acres of 72,300 acres).

Maui Acreage in Crop: 1980 to 2025

The reduction of crop acreage on Maui Island mirrors the statewide trend. According to the Agricultural Land Use Maps (**ALUM**), plantation agriculture declined by 65,661 acres, while diversified agriculture increased by only 1,854 acres (less than 3% of the land released from plantation agriculture), for a net loss of 63,807 acres:

	1980	2020	Change
Sugarcane and Pineapple	66,620	959	–65,661
Diversified Agriculture	4,905	6,759	+ 1,854
Total Cropland	71,525	7,718	–63,807

These figures are high in that they include fallow land, farm roads, base yards, warehouses, etc.

The last plantation that closed was the Hawaiian Commercial and Sugar Co. (**HC&S**) plantation in Central Maui. Its closure in 2016 freed about 36,000 acres for other agricultural activities. In December 2018, Mahi Pono purchased from Alexander & Baldwin, Inc. (**A&B**)

41,000 acres of agricultural land in Central Maui, including the former sugarcane lands of HC&S plus ranchlands. Fields will be planted in citrus and other crops, and some of the fields will be leased to small farmers. As of September 1, 2025, about 13,000 acres have been planted in crops, and over 9,000 acres have been planted in pasture grasses to support cattle operations.

With these plantings by Mahi Pono, the 1980-to-2025 decline in the amount of land used for crop farming is over 50,000 acres (63,800-acre reduction + the 13,000-acre replanting by Mahi Pono). In Central Maui, about 19,000 acres remain available for growing crops (41,000 acres of former HC&S sugarcane lands – 13,000 acres in crops planted by Mahi Pono – 9,000 acres planted in pasture grasses by Mahi Pono = 19,000 acres).

Urbanization of Agricultural Land, Maui: 1980 to 2023

From 1980 to 2023, the State Land Use Commission redistricted about 8,928 acres on Maui Island from the Agricultural District to the Urban and Rural Districts. Much of the urbanized land in Central Maui and West Maui was former sugarcane and pineapple land, while much of the urbanized land in South Maui was former low-quality ranchland.

Since 2000, the rate for redistricting from the Agricultural District to the Urban and Rural Districts has slowed. From 2000 to 2023, about 3,060 acres were redistricted on Maui Island, for an average of about 133 acres per year.

Summary

The Project will result in the redistribution of 166.512 acres from the State Agricultural District to the Urban District. However, this redistricting will not affect the growth of commercial crop farming on Maui Island or statewide, as the lack of affordable irrigation water renders this land unsuitable for cultivating commercial crops.

Farming on Maui Island is limited by the size of the market for profitable crops, and by the availability of affordable water for farming. It is not limited by the supply of farmland, as there is an extensive supply of high-quality farmland. As noted above, the Project will reduce the supply of high-quality farmland on Maui Island by only 0.23%, which is far too small to affect the growth of crop farming. Also, land released by crop farms has far outpaced land redistricted for urban uses on the island. From 1980 to 2025, crop farming contracted by about 50,000 acres. During a similar period (1980 to 2023), about 8,928 acres were redistricted from the Agricultural District to the Urban and Rural Districts. The later figure includes both former cropland and former low-quality ranchland.

Most of the land that was previously used for crop farming is still in the Agricultural District but is now used for ranching, which is a much lower-value land use. Furthermore, much of this former cropland could be repurposed back to farming provided a sufficient market for profitable crops can be identified and developed, and water is allocated for irrigation. The Project will not affect this potential repurposing.

Since 2000, redistricting from the Agricultural District to the Urban and Rural Districts has averaged about 133 acres per year. Assuming that future urbanization does not encroach significantly on existing farms and the most fertile lands having access to water, this pace of redistricting could continue for centuries without affecting the growth of crop farming on Maui Island.

Mitigating Measures

Since the Project will not limit the growth of crop farming on Maui or statewide no mitigation measures are recommended.

7. OFFSETTING BENEFITS

Repurposing about 166.512 acres from agriculture to urban uses will provide the following Project benefits:

— Benefits from construction activity

- Construction jobs and payroll associated with Project development.
- Indirect jobs and payroll generated by the purchase of goods and services by construction companies and families of construction workers.
- County tax revenues (excise tax surcharge, etc.) and State tax revenues (excise taxes, personal income taxes, corporate income taxes, etc.) paid by construction companies and workers, and by companies and families that are supported by construction activity.

— Benefits from operations at full development

- Affordable housing for residents.
- Goods and services provided by on-site restaurant, retail, office, and industrial activities.
- Recreational amenities (amphitheater, parks, sports fields, etc.).
- On-site jobs and payroll provided by on-site businesses.
- Off-site jobs and payroll generated by the purchase of goods and services by on-site families and businesses.
- County tax revenues (excise tax surcharge, property taxes, etc.) and State tax revenues (excise taxes, personal income taxes, corporate income taxes, etc.) paid by Project property owners, on-site families, on-site businesses, and off-site business that provide goods and services in support of on-site families and businesses.

8. CONSISTENCY WITH STATE AND COUNTY POLICIES

a. Availability of Agricultural Lands

The *Hawai'i State Constitution*, the *Hawai'i State Plan*, the *State Agriculture Functional Plan*, the *County of Maui 2030 General Plan,* the County's *Maui Island Plan,* and the County's *Wailuku-Kahului Community Plan* call directly or implicitly for preserving the economic viability of plantation agriculture (sugarcane and pineapple) and promoting the growth of diversified agriculture (i.e., non-plantation agriculture). To accomplish this, an adequate supply of agriculturally suitable lands and water must be assured.

Regarding plantation agriculture, sugarcane is no longer grown on the Project site or nearby since HC&S ceased all sugar operations on Maui in 2016 (see Section 5.a).

Regarding diversified agriculture, the Project site has no recent history of being used for growing crops other than sugarcane, nor is affordable water available to irrigate potential crops (see Sections 4.i and 5.b).

b. Conservation of Agricultural Lands

In addition to the above, State and County policies call for conserving and protecting prime agricultural lands, including protecting farmland from urban development.

However, the 166.512-acre Project site is no longer suitable for farming due to a lack of affordable water for irrigating crops (see Section 4.i).

c. Redesignation from Agricultural to Urban

Discussions in the *Agriculture State Functional Plan* recognize that redesignation of lands from Agricultural to Urban and/or Rural should be allowed "… upon a demonstrated change in economic or social conditions, and where the requested redesignation will provide greater benefits to the general public than its retention in …agriculture;" that is, when an "overriding public interest exists."

The enormous contraction of plantation agriculture and the resulting increase in the supply of land that came available for diversified crop farming constitutes a major change in economic conditions (see Subsection 6.c and Figure 12). Moreover, the Project will provide community benefits (homes, goods and services, recreational amenities, jobs, payroll, tax revenues, etc.) that far exceed the benefits of leaving the land in agriculture (no current agricultural jobs)—see Section 7.

d. Important Agricultural Lands

Chapter 205, Hawai'i Revised Statutes (**HRS**), declares "… that the people of Hawaii have a substantial interest in the health and sustainability of agriculture as an industry in the State. There is a compelling state interest in conserving the State's agricultural land resource

base and assuring the long-term availability of agricultural lands for agricultural use to achieve the purposes of: (1) Conserving and protecting agricultural lands; (2) Promoting diversified agriculture; (3) Increasing agricultural self-sufficiency; and (4) Assuring the availability of agriculturally suitable lands …". "The objective for the identification of important agricultural lands is to identify and plan for the maintenance of a strategic agricultural land resource base that can support a diversity of agricultural activities and opportunities that expand agricultural income and job opportunities and increase agricultural self-sufficiency for current and future generations."

IALs are defined as lands that: "(1) Are capable of producing sustained high agricultural yields when treated and managed according to accepted farming methods and technology; (2) Contribute to the State's economic base and produce agricultural commodities for export or local consumption; or (3) Are needed to promote the expansion of agricultural activities and income for the future, even if currently not in production."

The standards and criteria for IAL designation are as follows:

— Land currently used for agricultural production.

— Land with soil qualities and growing conditions that support agricultural production of food, fiber, or fuel- and energy-producing crops.

— Land identified under agricultural productivity rating systems, such as the agricultural lands of importance to the State of Hawaii (ALISH) system adopted by the board of agriculture and biosecurity on January 28, 1977.

— Land types associated with traditional native Hawaiian agricultural uses, such as taro cultivation, or unique agricultural crops and uses, such as coffee, vineyards, aquaculture, and energy production.

— Land with sufficient quantities of water to support viable agricultural production.

— Land whose designation as important agricultural lands is consistent with general, development, and community plans of the county.

— Land that contributes to maintaining a critical land mass important to agricultural operating productivity.

— Land with or near support infrastructure conducive to agricultural productivity, such as transportation to markets, water, or power.

The IAL designation is a supplemental State land use classification that provides access to incentives that promote profitable farming of IALs. The designation does not change existing land classifications (i.e., State Land Use Districts, County community plan designations, County zoning, etc.), nor does it restrict allowable uses of IAL-designated agricultural land.

Landowners can petition the State Land Use Commission (**SLUC**) to designate as IAL all or portions of their agricultural land. In addition, each county is required to identify, map and recommend lands within its jurisdiction that have potential for IAL designation in

keeping with the standards, criteria and procedures established by law. After the SLUC reviews a County's recommendations, the SLUC is responsible for designating IALs.

None of the Project area is currently designated as IAL, and future designation is highly improbable. The area in the south-west corner of the Project site that is within the County's UGB is not eligible for IAL designation (see Figure 5). The remaining lands do not meet the definition of IAL due to the lack of affordable water for irrigating crops. Specifically, these lands, which are no longer farmed: (1) are incapable of producing sustained high agricultural yields without affordable water, (2) contribute negligibly to the State's economic base, and (3) are not needed to promote the expansion of agricultural activities and income for the future.

e. County of Maui Land-Use Plans

Nearly all of the Project site is outside the Urban Growth Boundary of the Maui Island Plan, nearly all is designated Agriculture in the Wailuku-Kahului Community Plan, and all of the land is zoned Agriculture by the County. Development of the Project will require appropriate changes to these plans and to the zoning.

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FIGURE 1

REGIONAL LOCATION MAP

SOURCE: COUNTY OF MAUI QPUBLIC GIS POWERED BY ESRI.

Project HOONANI VILLAGE	**Designed by** TCC	**Date** 08/2024	PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING · LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU, HAWAII PH: 808.400.5959 WWW.PD-GRP.COM	**Sheet** 1 of 1
No. H109-001	**Drawn by** TCC	**Date** 08/2024		
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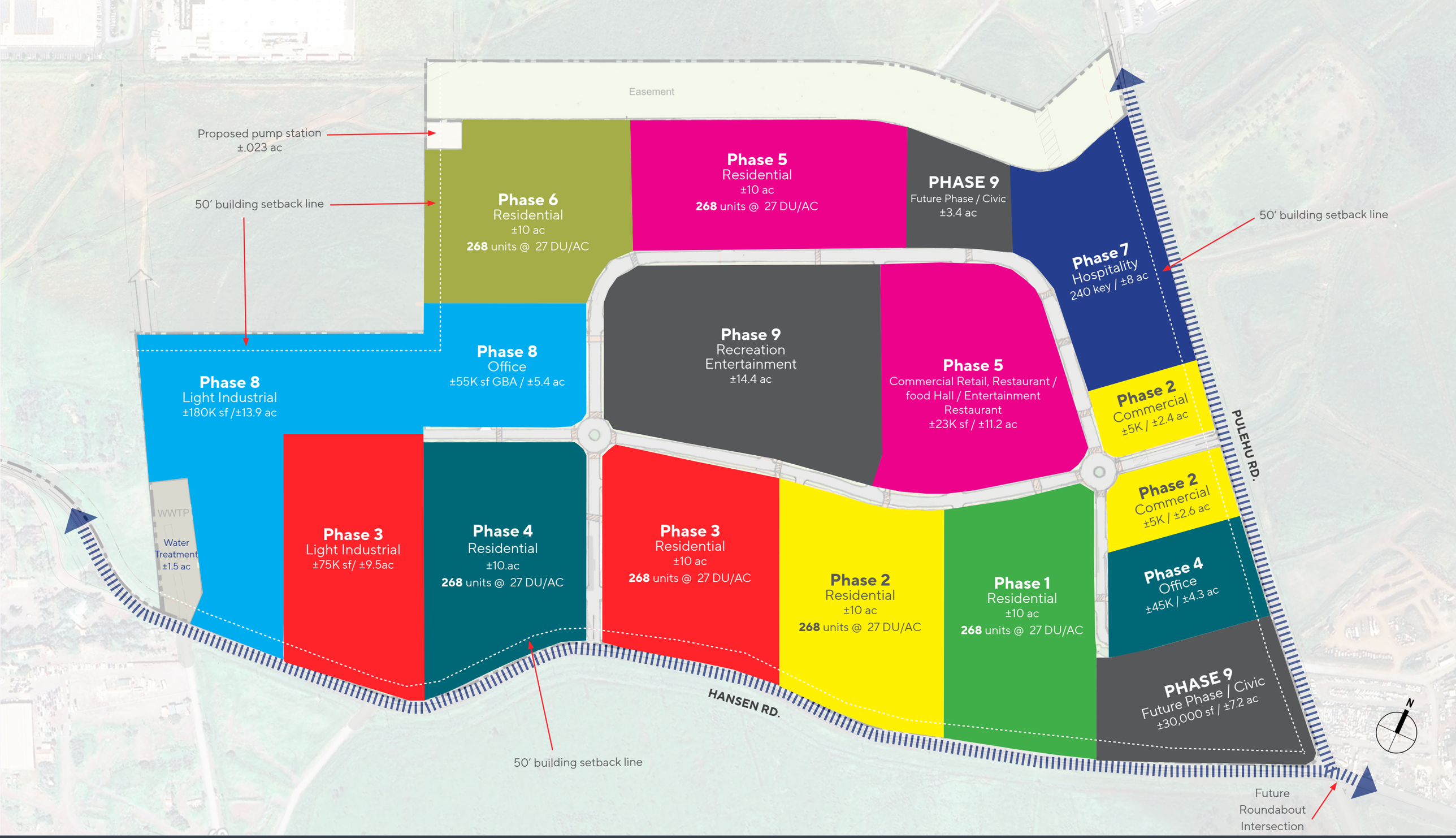
		Type PLANNING		

FIGURE 2

PROPERTY LOCATION MAP

SOURCE: COUNTY OF MAUI QPUBLIC GIS POWERED BY ESRI.

Project HOONANI VILLAGE	**Designed by** TCC	**Date** 08/2024	PIONEER DESIGN GROUP – HAWAII LLC	**Sheet** 1	
No. H109-001	**Drawn by** TCC	**Date** 08/2024	CIVIL ENGINEERING · LAND USE PLANNING CONSTRUCTION MANAGEMENT	of	
	Horiz. Scale:	**Vert. Scale:**	HONOLULU, HAWAII PH: 808.400.5959	1	
		Type PLANNING	WWW.PD-GRP.COM		



Ho'onani
Development

FIGURE 3
PROPOSED MASTER SITE PLAN

Kahului, Maui, Hawaii

Concept Site Plan Study
Land Use Diagram

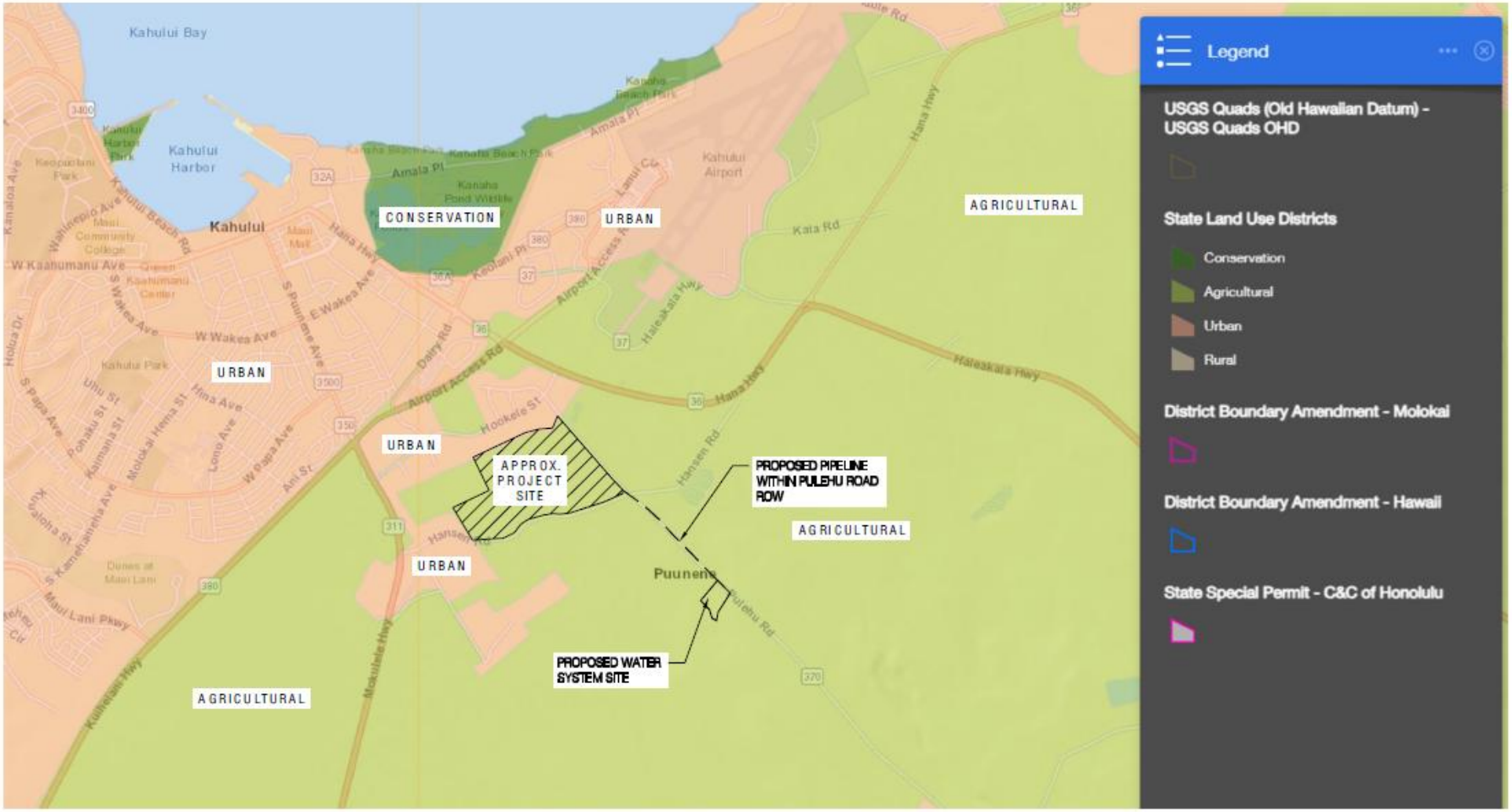
Architecture.
Design.
Relationships.

2

Scale 1"=300'
Job No. 2023-0690
Date 2025-10-24

FIGURE 4

STATE LAND USE DISTRICT BOUNDARY MAP



SOURCE: STATE LAND USE COMMISSION MAPS

Project HOONANI VILLAGE **No.** H109-001	**Designed by** TCC **Date** 08/2024 **Drawn by** TCC **Date** 08/2024 **Horiz. Scale:** NTS **Vert. Scale:** NTS **Type** PLANNING	PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING • LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU, HAWAII PH: 808.400.5959 WWW.PD-GRP.COM	**Sheet** 1 of 1

Maui Island - Directed Growth Map

C5

County of Maui

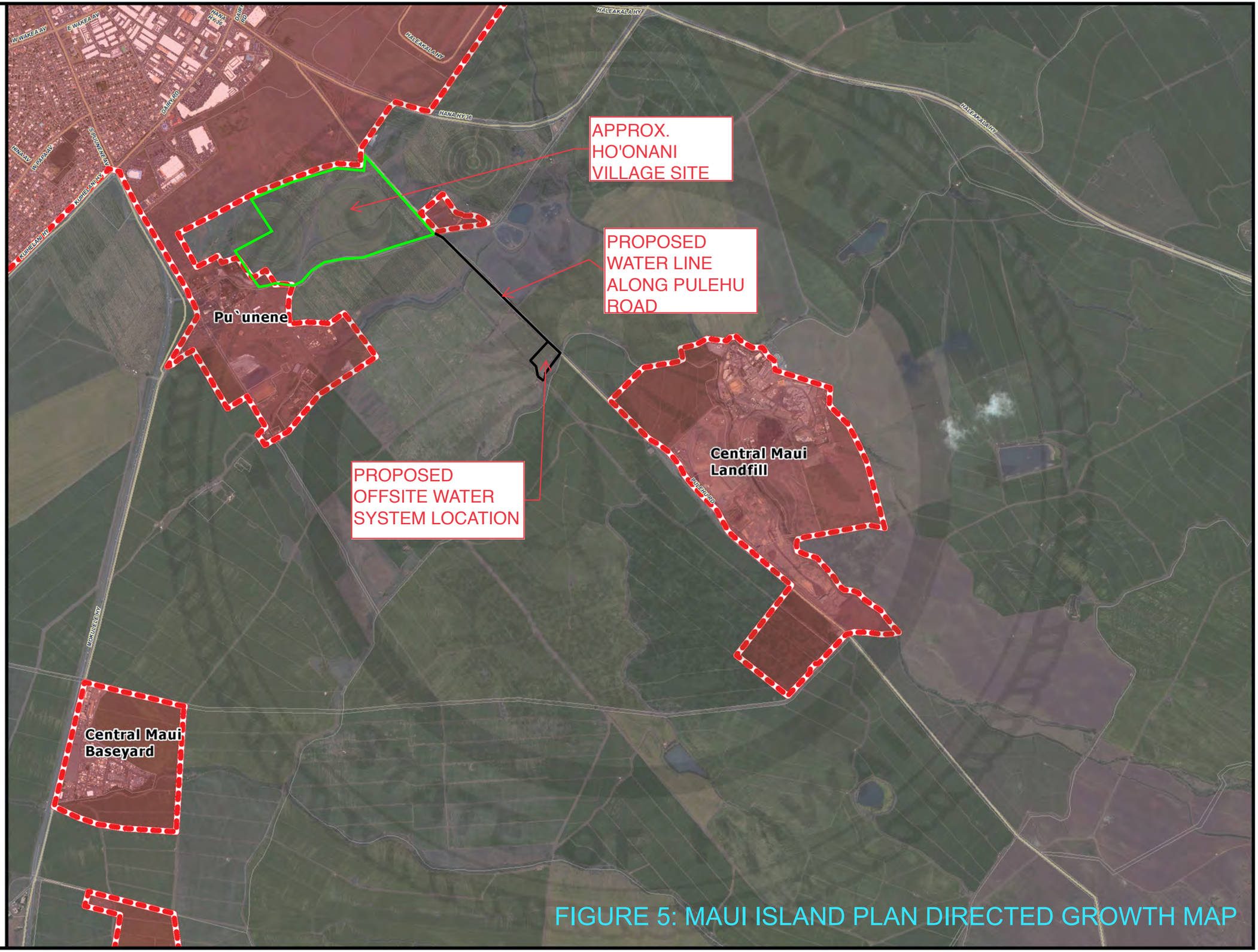


FIGURE 5: MAUI ISLAND PLAN DIRECTED GROWTH MAP

Maui Island Plan Directed Growth Map

Pulehu Road

C5

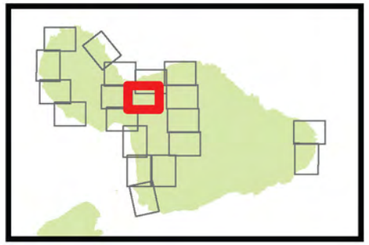
Legend

Growth Boundaries

- Urban
- Small Town
- Rural

Reference

- 2011 Parcels
- Primary Roads



Feet

0 500 1,000 2,000 3,000 4,000

Product Code: M-CET_20121210-D2

Copyright © December 10, 2012

Background Image: Worldview 2 - 2010

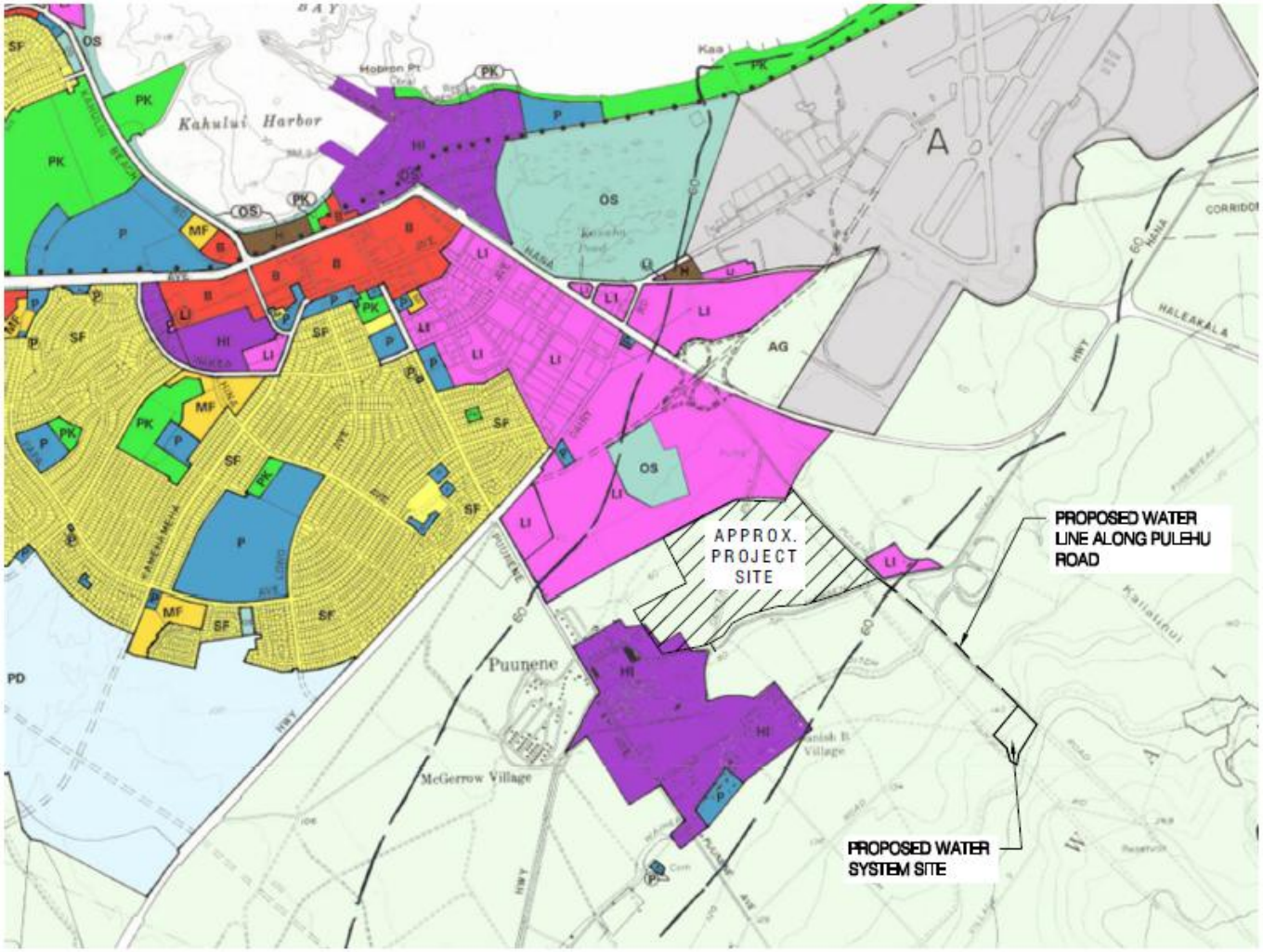
This is not a zoning map. Please contact the Planning Department for Zoning confirmation.

PREPARED BY:

Long Range Planning Division
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

FIGURE 6

WAILUKU-KAHULUI COMMUNITY PLAN MAP (2002)

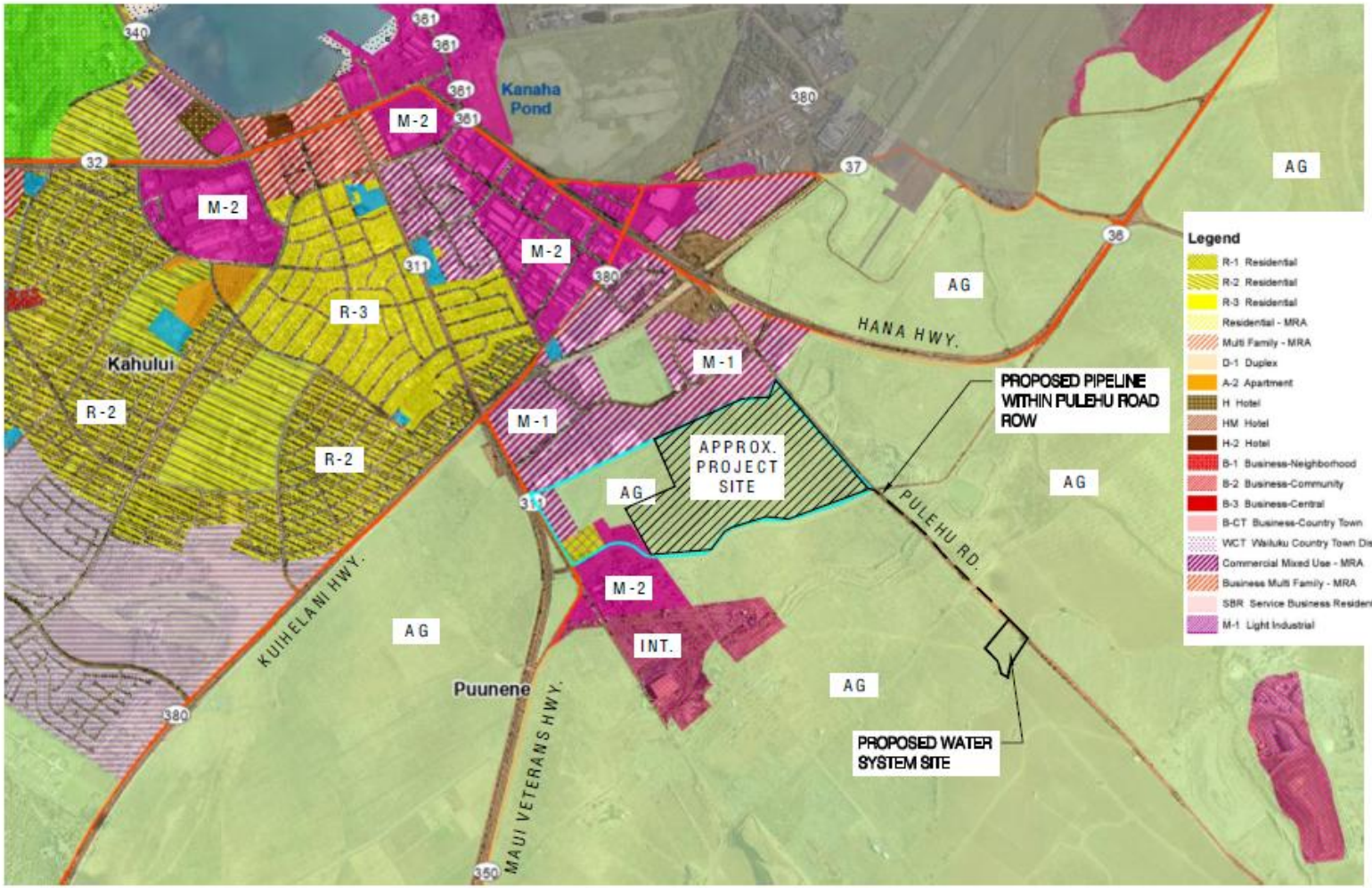


SOURCE: COUNTY OF MAUI, COMMUNITY PLAN MAPS

Project	Designed by TCC	Date 08/2024		Sheet
HOONANI VILLAGE	Drawn by TCC	Date 08/2024	PIG PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING - LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU HAWAII PH: 808.400.5969 WWW.PD-GRP.COM	1 of 1
No. H109-001	Horiz. Scale: NTS	Vert. Scale: NTS		
		Type PLANNING		

FIGURE 7

MAUI COUNTY ZONING MAP



SOURCE: MAUI COUNTY GIS

Project HOONANI VILLAGE **No.** H109-001	**Designed by** TCC **Date** 08/2024 **Drawn by** TCC **Date** 08/2024 **Horiz. Scale:** NTS **Vert. Scale:** NTS **Type** PLANNING	PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING - LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU, HAWAII PH: 808.4003969 WWW.PD-GRP.COM	**Sheet** 1 of 1

FIGURE 8

SOIL ASSOCIATION MAP

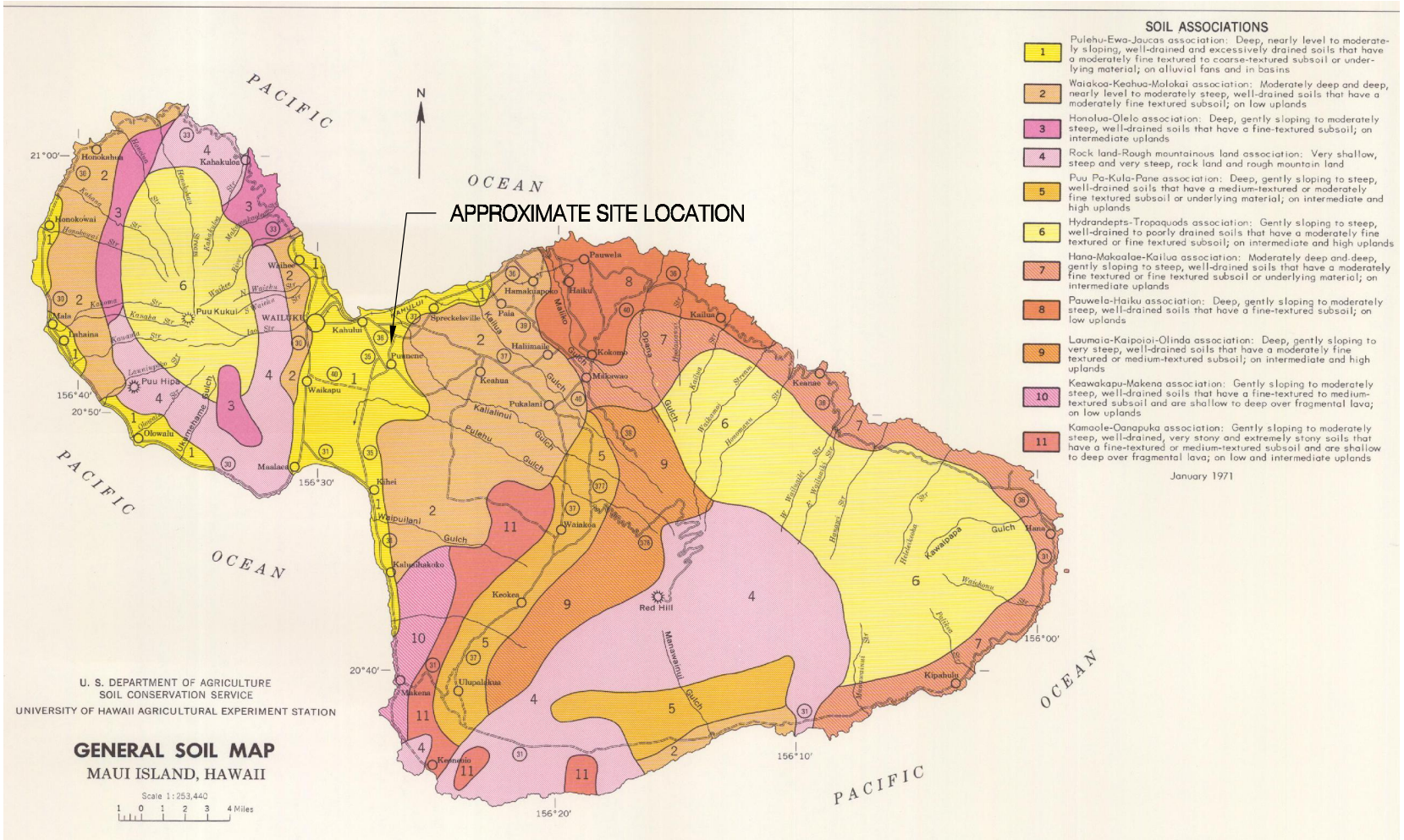

SOIL ASSOCIATIONS
1 Pulehu-Ewa-Jaucas association: Deep, nearly level to moderately sloping, well-drained and excessively drained soils that have a moderately fine textured to coarse-textured subsoil or underlying material; on alluvial fans and in basins
2 Waiakoa-Keahua-Molokai association: Moderately deep and deep, nearly level to moderately steep, well-drained soils that have a moderately fine textured subsoil; on low uplands
3 Honolua-Olelo association: Deep, gently sloping to moderately steep, well-drained soils that have a fine-textured subsoil; on intermediate uplands
4 Rock land-Rough mountainous land association: Very shallow, steep and very steep, rock land and rough mountain land
5 Puu Pa-Kula-Pane association: Deep, gently sloping to steep, well-drained soils that have a medium-textured or moderately fine textured subsoil or underlying material; on intermediate and high uplands
6 Hydrandepts-Tropaquods association: Gently sloping to steep, well-drained to poorly drained soils that have a moderately fine textured or fine textured subsoil; on intermediate and high uplands
7 Hana-Makaalae-Kailua association: Moderately deep and deep, gently sloping to steep, well-drained soils that have a moderately fine textured or fine textured subsoil or underlying material; on intermediate uplands
8 Pauwela-Haiku association: Deep, gently sloping to moderately steep, well-drained soils that have a fine-textured subsoil; on low uplands
9 Laumaio-Kaipoioi-Olinda association: Deep, gently sloping to very steep, well-drained soils that have a moderately fine textured or medium-textured subsoil; on intermediate and high uplands
10 Keawakapu-Makena association: Gently sloping to moderately steep, well-drained soils that have a fine-textured to medium-textured subsoil and are shallow to deep over fragmental lava; on low uplands
11 Kamaole-Oanapuka association: Gently sloping to moderately steep, well-drained, very stony and extremely stony soils that have a fine-textured or medium-textured subsoil and are shallow to deep over fragmental lava; on low and intermediate uplands
January 1971
PACIFIC
OCEAN
N
APPROXIMATE SITE LOCATION
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
UNIVERSITY OF HAWAII AGRICULTURAL EXPERIMENT STATION
GENERAL SOIL MAP
MAUI ISLAND, HAWAII
Scale 1:253,440
1 0 1 2 3 4 Miles
Honokahua
Kahakuloa
Honokowai
Mala
Lahaina
Puu Kukui
WAILUKU
Puu Hipa
Olowalu
Maalaea
Waihee
Kahului
Waikapu
Spreckelsville
Paia
Haliimaile
Pukalani
Kaalalinui
Pulehu
Gulch
Kihei
Wailuiluai
Kaiwehakoko
Keokea
Waiakoa
Makena
Ulupalakua
Keomoio
Red Hill
Manawainui
Pauwela
Haiku
Hamakuapoko
Kokomo
Makawao
Kailua
Keanae
Kipahulu
Hana
Kawaipapa
Opana
Waikamoi
Hoolawa
Waikomo
Hueeuna
Kaupakulua
Kaupo
Kaluanui
Kaluanui
Kaluanui

FIGURE 9

HYDROLOGIC SOIL GROUP CLASSIFICATION MAP

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EaA	Ewa silty clay loam, 0 to 3 percent slopes, MLRA 158	191.8	85.1%
MuA	Molokai silty clay loam, 0 to 3 percent slopes, MLRA 158	4.3	1.9%
MuB	Molokai silty clay loam, 3 to 7 percent slopes, MLRA 158	6.4	2.8%
MuC	Molokai silty clay loam, 7 to 15 percent slopes, MLRA 158	9.3	4.1%
WeB	Waiakoa silty clay loam, 3 to 7 percent slopes	8.2	3.6%
WeC	Waiakoa silty clay loam, 7 to 15 percent slopes	3.0	1.0%
WfB	Waiakoa cobbly silty clay loam, 3 to 7 percent slopes	1.7	0.7%
Totals for Area of Interest		225.2	100.0%

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, SOIL MAP

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No. H109-001	**Drawn by** TCC	**Date** 08/2024	
	Horiz. Scale: NTS	**Vert. Scale:** NTS	
		Type PLANNING	

Sheet 1 of 1

FIGURE 10

AGRICULTURAL LANDS OF INTEREST OF THE STATE OF HAWAII (ALISH) MAP

SOURCE: STATE OF HAWAII GIS (POWERED BY GEOPORTAL)

Project HOONANI VILLAGE **No.** H109-001	**Designed by** TCC **Date** 08/2024 **Drawn by** TCC **Date** 08/2024 **Horiz. Scale:** NTS **Vert. Scale:** NTS **Type** PLANNING	PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING - LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU, HAWAII PH: 808.4032409 WWW.PD-GRP.COM	**Sheet** 1 of 1

FIGURE 11

LAND STUDY BUREAU MAP

SOURCE: STATE OF HAWAII GIS PROGRAM, LAND STUDY BUREAU'S CLASS LOCATOR

Project HOONANI VILLAGE **No.** H109-001	**Designed by** TCC **Date** 08/2024 **Drawn by** TCC **Date** 08/2024 **Horiz. Scale:** NTS **Vert. Scale:** NTS **Type** PLANNING	PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING · LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU, HAWAII PH: 808.400.5959 WWW.PD-GRP.COM	**Sheet** 1 of 1

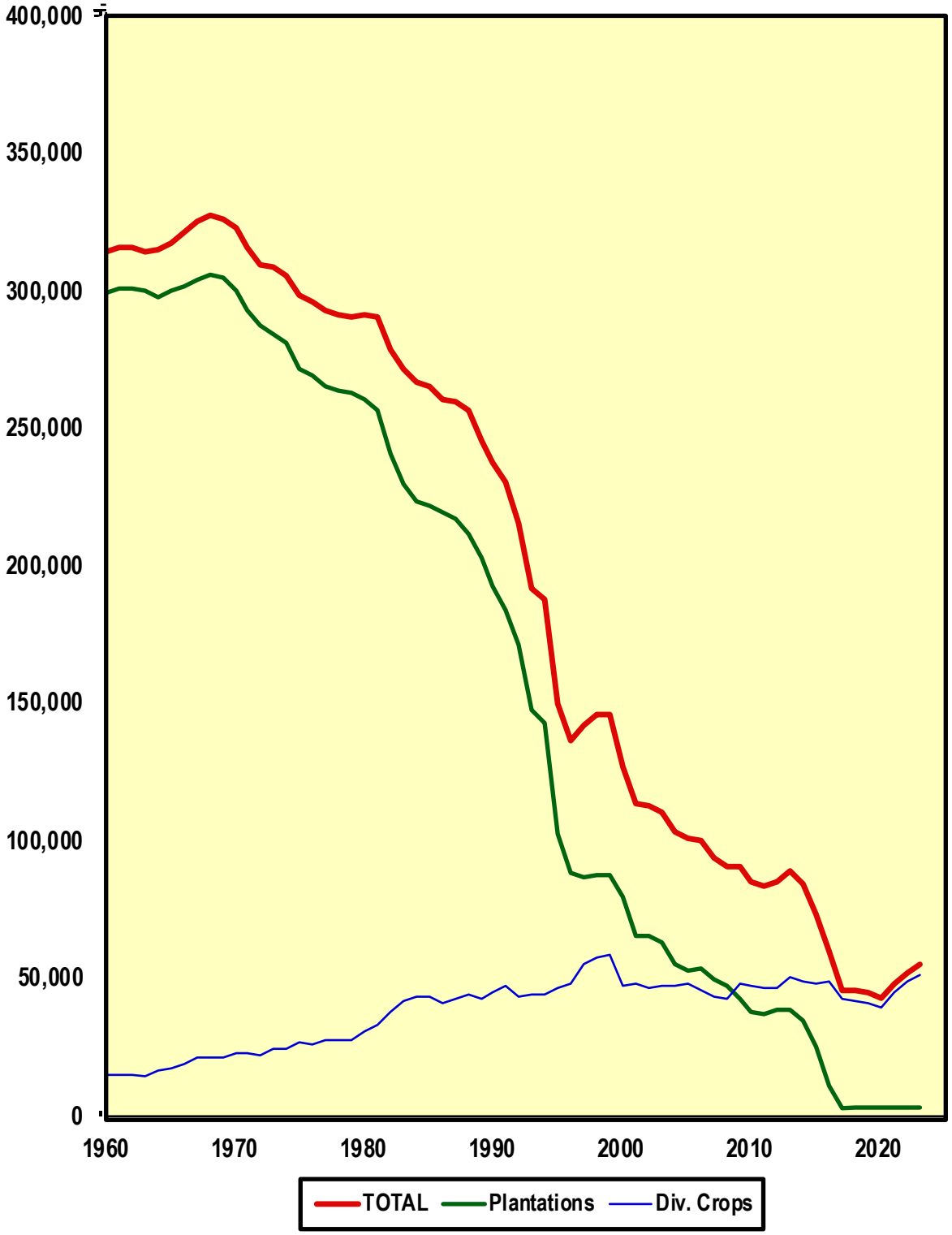
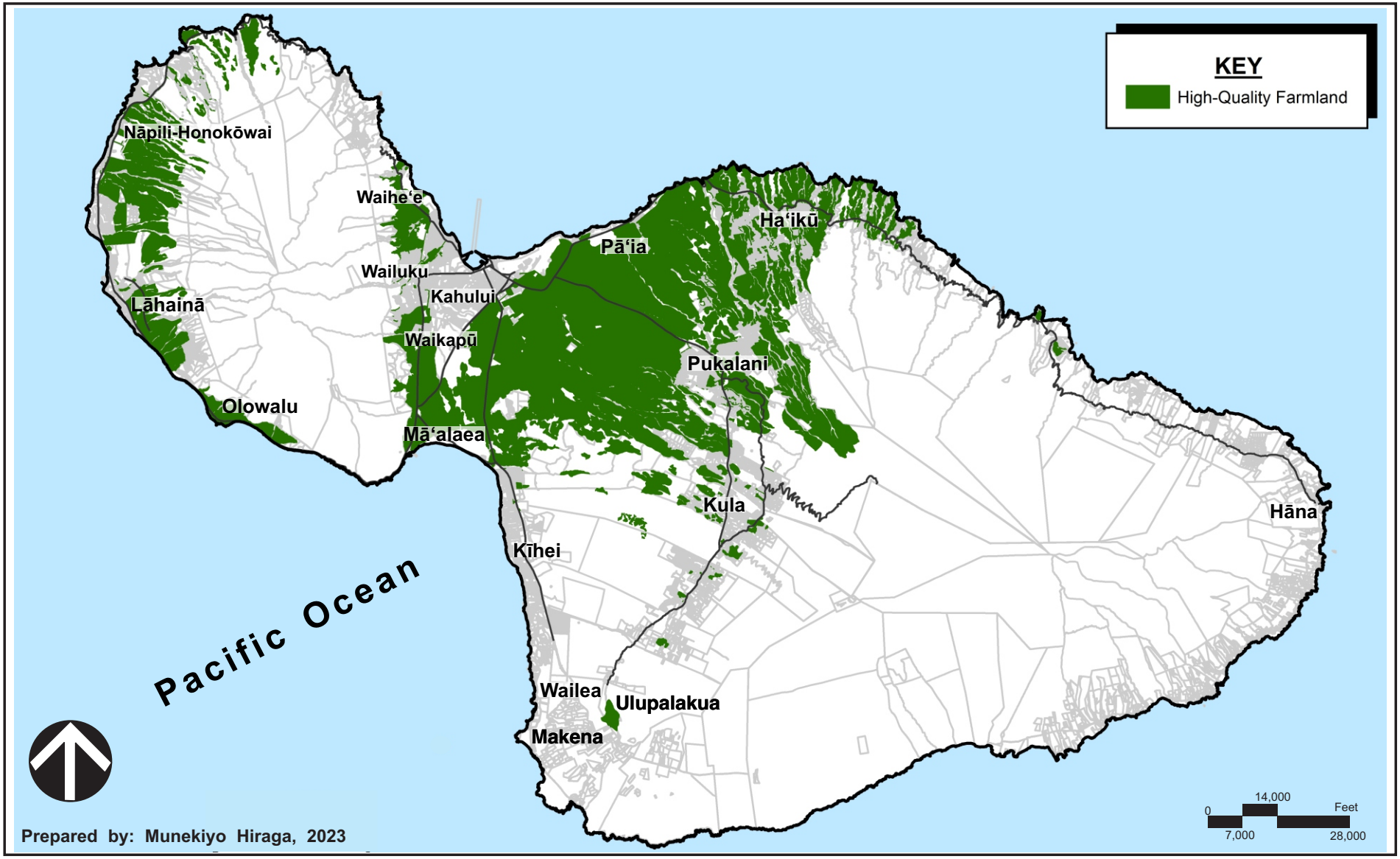


FIGURE 12

ACREAGE IN CROP, HAWAII: 1960 TO 2023

FIGURE 12
ACREAGE IN CROP, HAWAII: 1960 TO 2023



DATA\COM\DEM CMaui WW Infrastructure 2353\Apps\Figs\HQFarmland

FIGURE 13

HIGH-QUALITY FARMLAND MAP, MAUI

APPENDIX

STATE AND COUNTY GOALS, OBJECTIVES, POLICIES AND GUIDELINES RELATED TO AGRICULTURAL LANDS

1. HAWAI'I STATE CONSTITUTION (Article XI, Section 3):

> …to conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands…

2. HAWAI'I STATE PLAN (Chapter 226, Hawaii Revised Statutes, as amended):

Section 226-7 Objectives and policies for the economy--agriculture.

(a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:

(1) Viability in Hawaii's sugar and pineapple industries.

(2) Growth and development of diversified agriculture throughout the State.

(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being.

(b) To achieve the agricultural objectives, it shall be the policy of the State to:

(2) Encourage agriculture by making best use of natural resources.

(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.

(16) Facilitate the transition of agricultural lands in economically nonfeasible agricultural production to economically viable agricultural uses.

Section 226-103 Economic priority guidelines.

(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:

(1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.

(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:

(1) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.

(10) Support the continuation of land currently in use for diversified agriculture.

Section 226-104 Population growth and land resources priority guidelines.

(b) Priority guidelines for regional growth distribution and land resource utilization:

(2) Make available marginal or non-essential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.

3. AGRICULTURAL STATE FUNCTIONAL PLAN (1991)

(Functional plans are guidelines for implementing the State Plan. They are approved by the Governor, but not adopted by the State Legislature.)

Objective H: Achievement of Productive Agricultural Use of Lands Most Suitable and Needed for Agriculture.

Policy H(2): Conserve and protect important agricultural lands in accordance with the Hawaii State Constitution.

Action H(2)(a): Propose enactment of standards and criteria to identify, conserve, and protect important agricultural lands and lands in agricultural use.

Action H(2)(c): Administer land use district boundary amendments, permitted land uses, infrastructure standards, and other planning and regulatory functions on important agricultural lands and lands in agricultural use, so as to ensure the availability of agriculturally suitable lands and promote diversified agriculture.

4. COUNTY OF MAUI 2030 GENERAL PLAN, COUNTYWIDE POLICY PLAN (2010)

Countywide goals, objectives, policies and actions

F. Strengthen the Local Economy

Objective

2. Diversify and expand sustainable forms of agriculture and aquaculture.

Policies

b. Prioritize the use of agricultural land to feed the local population, and promote the use of agriculture lands for sustainable and diversified agricultural activities.

e. Support ordinances, programs, and policies that keep agricultural land and water available and affordable to farmers.

Implementing Actions

c. Create agricultural parks in areas distant from genetically modified crops.

J. Promote Sustainable Land Use and Growth Management

Objective

2. Improve planning for and management of agricultural lands and rural areas.

Policies

a. Protect prime, productive, and potentially productive agricultural lands to maintain the islands' agricultural and rural identities and economies.

c. Discourage developing or subdividing agriculturally designated lands when non-agricultural activities would be primary uses.

Implementing Actions

a. Inventory and protect prime, productive, and potentially productive agricultural lands from competing non-agricultural land uses.

5. MAUI ISLAND PLAN, GENERAL PLAN 2030 (2012)

Core Values

E. Preserve rural and agricultural lands and encourage sustainable agriculture.

Agricultural Lands

Goal

7.1 Maui will have a prosperous agricultural industry and will protect agricultural lands.

Objective

7.1.1 Significantly reduce the loss of productive agricultural lands.

Policies

7.1.1.a Allow, where appropriate, the clustering of development on agricultural lands when approved as a CSD [Conservation Site Design] plan or similar approval mechanism.

7.1.1.b Require, where appropriate, the review and approval of CSD plans prior to the subdivision of agricultural land.

7.1.1.c Discourage developing or subdividing productive agricultural lands for residential uses in which the residence would be the primary use and any agricultural activities would be secondary uses.

7.1.1.e Focus urban growth, to the extent practicable, away from productive and important agricultural lands.

7.1.1.f Strongly discourage the conversion of productive and important agricultural lands (such as sugar, pineapple, and other produce lands) to rural or urban

use, unless justified during the General Plan update, or when other overriding factors are present.

7.1.1.h Provide incentives for landowners to preserve and protect agricultural lands from development through the use of TDR/PDR, tax credits, easement programs, or similar means.

7.1.1.j Require all major developments adjacent to agricultural lands to provide an appropriate and site-specific agricultural protection buffer as part of a required site plan.

Directed Growth Plan

Rural Growth Area, Policies

8.2.d All development within rural growth areas should avoid encroachment upon prime agricultural land.

Wailuku-Kahului

As shown in Figure 6, Pu‘unani is within the Growth Area for Wailuku, with a portion within the Urban Boundary and a portion within the Rural Boundary.

6. COUNTY OF MAUI, WAILUKU–KAHALUI COMMUNITY PLAN (2002)

B. Intended Effects of the Wailuku-Kahului Community Plan

… The plan seeks to balance future growth and development in a manner reflective of the urban/agricultural character of the region. … the protection of agricultural lands is an inherent part of the plan.

C. Goals, Objectives, Policies and Implementing Actions

ECONOMIC ACTIVITY

Goal

A stable and viable economy that provides opportunities for growth and diversification to meet long-term community and regional needs and in a manner that promotes agricultural activity and preserves agricultural lands and open space resources.

Objectives and policies

1. Support agricultural production so agriculture can continue to provide employment and contribute to the region’s economic well-being.

9. Support the establishment of agricultural parks for truck farming, piggery operations, bee keeping and other diversified agricultural operations within larger unsubdivided agricultural parcels and in locations that are compatible with residential uses.

ENVIRONMENT

Objectives and policies

1. Preserve agricultural lands as a major element of the open space setting that which borders the various communities within the planning region …

HOUSING

Objectives and policies

3. Seek alternative residential growth areas within the planning region, with high priority given to the Wailuku and Kahului areas. This action should recognize that crucial issues of maintaining important agricultural lands …

LAND USE

Objectives and policies

1. Ensure that adequate lands are available to support the region's present and future agricultural activities.
2. Identify prime or productive agricultural lands, and develop appropriate regulations for their protection.
3. The direct and cumulative impacts of agricultural subdivisions and the impacts on the community shall be assessed and considered.
4. Establish administrative procedures and standards … to ensure that agricultural subdivisions shall not be approved unless their uses are expressly permitted by Chapter 205, Hawaii Revised Statutes.
5. Encourage traditional Hawaiian agriculture, such as taro cultivation, within the agricultural district, in areas.

7. REFERENCES

Act 25, S.B. No. 1158, April 15, 1993.

County of Maui, Planning Department, Long Range Division. *Maui Island Plan, General Plan 2030.* December 28, 2012.

County of Maui. *County of Maui 2030 General Plan, Countywide Policy Plan.* Adopted by Ordinance No. 3732, effective on March 24, 2010.

Hawaii Department of Agriculture. *The Hawaii State Plan: Agriculture, State Functional Plan*. 1991.

Maui County Council. *Wailuku-Kahului Community Plan.* 2002.

State of Hawaii, Office of State Planning, Office of the Governor. *The Hawaii State Plan.* 1991.

APPENDIX ‘L’ – WATER RESOURCE ASSESSMENT

Water Resource Assessment for the **Proposed Ho'onani Village Project** in Kahului, Maui, Hawaii

Prepared for:

Alpha Inc.
P. O. Box 330449
Kahului, Hawaii 96733

Prepared by:

Tom Nance Water Resource Engineering
560 N. Nimitz Hwy. - Suite 213
Honolulu, Hawaii 96817

March 2026

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Onsite Wastewater Treatment Plant	1
Stormwater Drainage System	5
Summary Conclusions and Unresolved Issues	5

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2	Pumpage in the Kahului Aquifer Since the Closure of HC&S	4

List of Tables

No.	Title	Page
1	Water Demand Calculations	3

Introduction

This report presents a water resource impact analysis for the proposed Ho'onani Village Project (HVP). It would be located on TMK 3-8-006:004 which is adjacent to the Hawaiian Commercial & Sugar Company (HC&S) Puunene Mill (refer to Figure 1). The HVP would consist of 1608 residential units and associated commercial and light industrial uses. The "Preliminary Engineering Report, Ho'onani Village" dated March 2026, by the Pioneer Design Group – Hawaii LLC provides a detailed description of the HVP and it has been used as the basis for this resource report. The HVP would include the development of a privately owned and operated water system, an onsite private wastewater plant, and a drainage system with detention and infiltration basins.

Description of the Water Supply

The HVP proposes to use the existing Puunene-Pump 6 Well (State Well No. 5226-002) a former HC&S Facility. A distribution main along Pulehu Road would connect the wells to the HVP. Table 1 lists HVP's calculated supply requirements. These calculations are based on the Maui County Department of Water Supply's guidelines. At full build out and occupancy, the total supply would amount to an average of 1,097,170 gallons per day (GPD) with a maximum day demand of 1,645,755 GPD. The well is located on the Kahului Aquifer System, right next to its boundary with the Paia Aquifer System. The HVP's supply requirement is well within the capacity of the Puunene-Pump 6 Well. During its use by HC&S, its installed pump capacity was 23 MGD.

It is anticipated that the well's salinity will be slightly brackish and will require reverse osmosis filtration to reduce the salinity for drinking water use.

The Puunene-Pump 6 Well is a former HC&S Well pumping facility. Ground elevation at the well site is 182 feet. The facility consists of a vertical tunnel with elevator for access and two major horizontal skimming tunnels. The two plantation pumps, of nominal 10 and 15 MGD capacities, are still installed. Over the Well's period of HC&S' use (from construction in 1934 to 2014), the salinity of the water pumped varied from a specific conductance of 1300 to 2000 µS/cm, equivalent to chlorides on the order of 350 to 550 MG/L. As measured on August 28, 2025, the specific conductance at the static water surface was 1200 µS/cm and it increased slightly to 1230µS/cm at the bottom of the water, equivalent to about 325 to 330 MG/L as chlorides. The well is located in the Kahului Aquifer which has a Commission on Water Resource Management (CWRM) designated sustainable yield of 1.0 MGD. Historically, in the plantation era, total aquifer pumpage was as high as 50 MGD and it is currently about 6 to 7 MGD (Figure 2). Despite the fact that ongoing pumpage exceeds the regulatory sustainable yield, the CWRM has continued to issue Well Construction permits for wells in the aquifer system. The plantation pumps will not be used as their capacities far exceed the HVP's required supply. Two 700 GPM pumps, one for each of the two major development tunnels would provide the required supply in a 20-hour pumping day. It is the opinion of the author of this assessment that the Puunene-Pump 6 Well would not adversely impact any ongoing use of existing wells or the utility of the Kahului Aquifer System.

Onsite Wastewater Treatment Plant

An onsite wastewater treatment plant is proposed to treat wastewater to R-1 quality for irrigation reuse. Calculated projected wastewater production, including infiltration, is estimated to be 804,086 GPD. There will be times in wet weather when the treated wastewater will exceed the irrigation reuse.

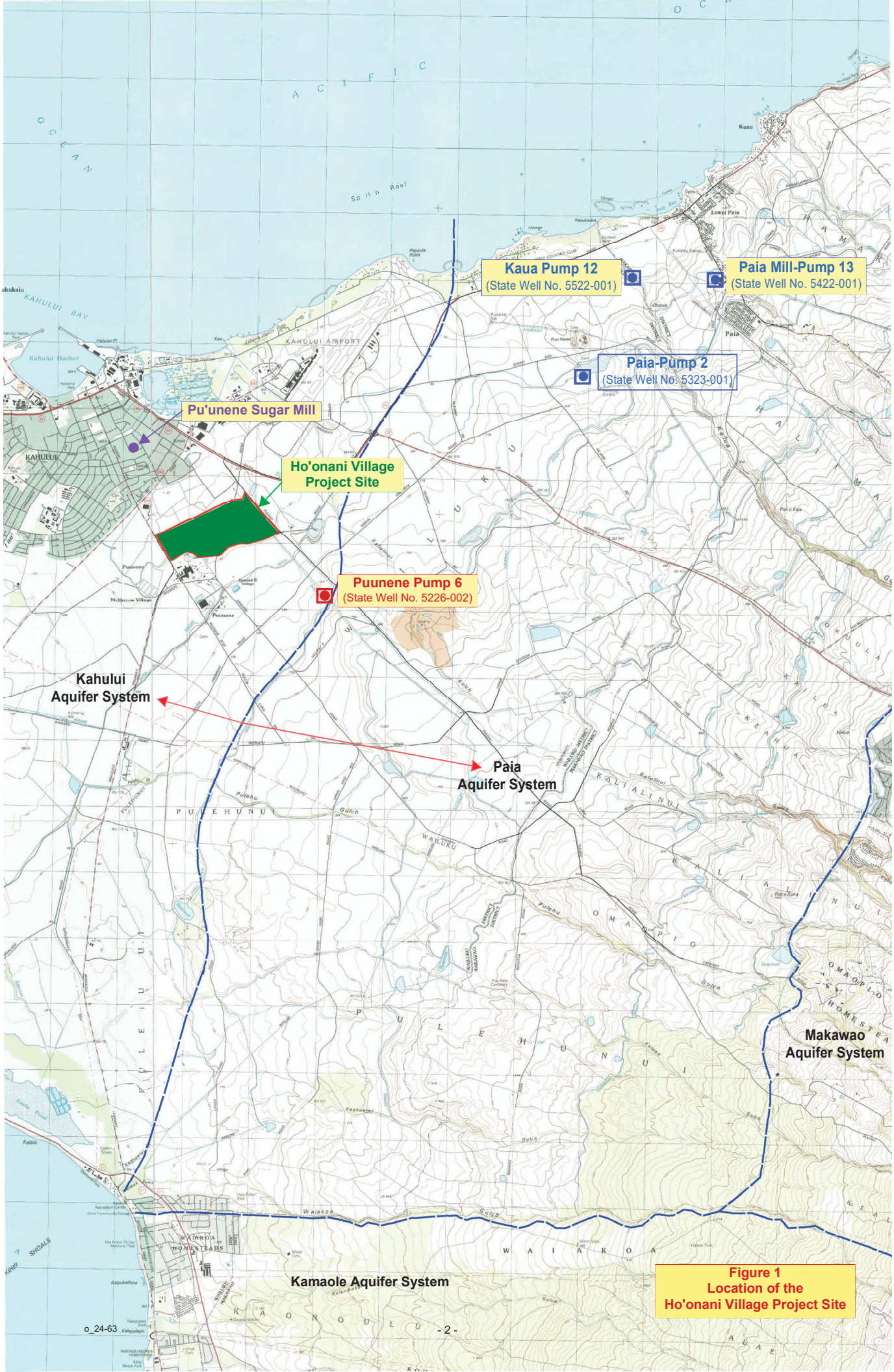


Figure 1
Location of the
Ho'onani Village Project Site

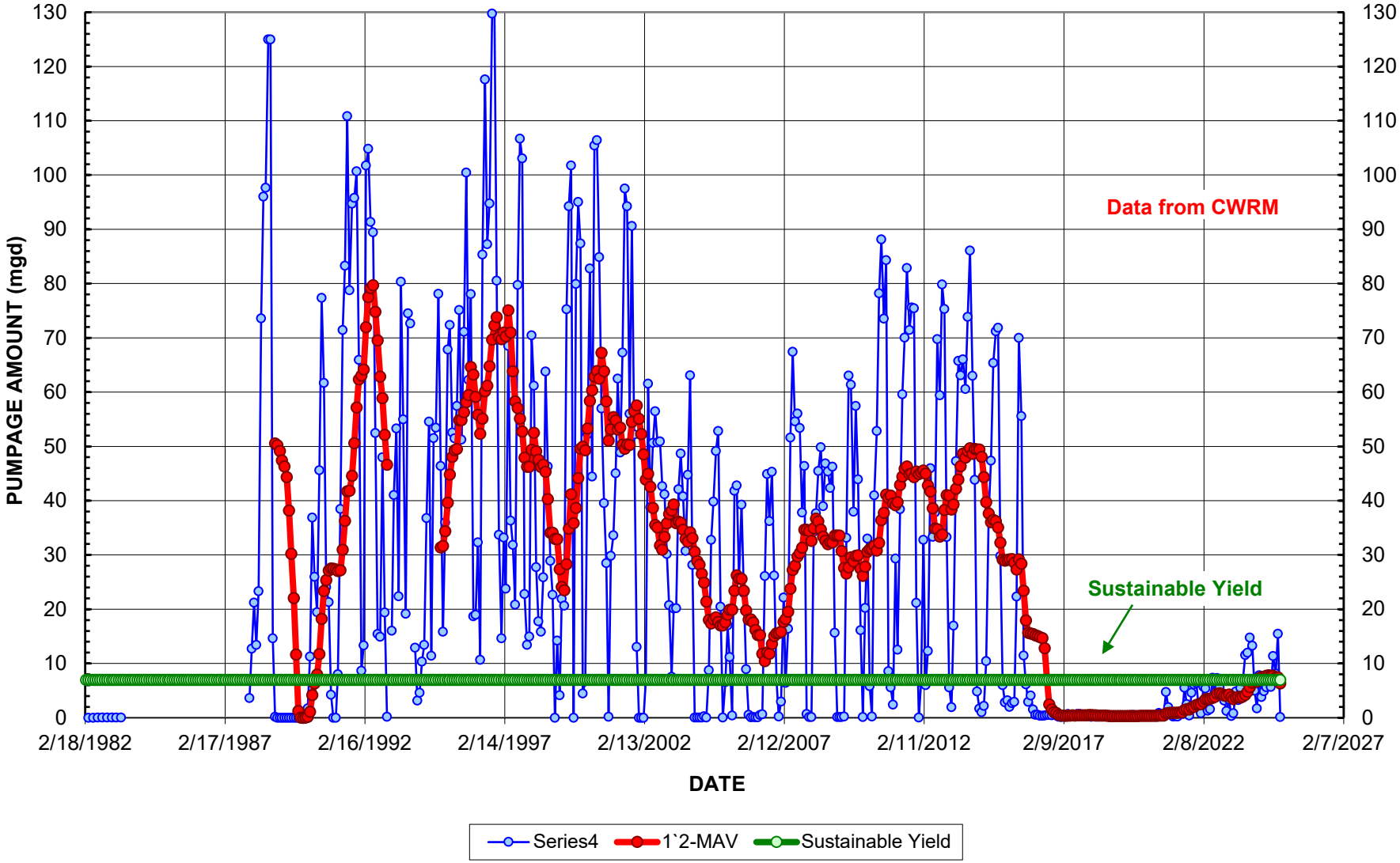
Table 1

Water Demand Calculations

Phase	Type of Use	Quantity of Unit	Average Daily Demand (GPD)	Max Daily Demand (GPD) (1.5 x ADD)
1	Residential Irrigation	268 units 3.77 acres	113,609	170,414
2	Residential Commercial Irrigation	268 units 0.230 acres 4.77 acres	116,686	175,030
3	Residential Commercial Irrigation	268 units 1.722 acres 4.96 acres	125,963	188,944
4	Residential Commercial Irrigation	268 units 1.033 acres 4.60 acres	121,218	181,828
5	Residential Commercial Irrigation	268 units 0.803 acres 6.63 acres	123,292	184,938
6	Residential Irrigation	268 units 3.56 acres	113,252	169,878
7	Commercial Irrigation	240 units 2.05 acres	87,485	131,228
8	Commercial Irrigation	235,000 sq. ft. 1.41 acres	35,297	52,946
9	Commercial Irrigation	25 acres 6.25 acres	160,625	240,938
Project Total	**-**	**-**	**997,427**	**1,496,141**
Project Total **(Increased by 10% for unmetered losses)**	**-**	**-**	**1,097,170**	**1,645,755**

Note: From Table 9-1, page 35 of the Preliminary Engineering Report

Figure 2
Pumpage in the Paia Aquifer System Since January 1988



o_24-63

The preliminary engineering report acknowledges this and indicates that the disposal of the excess effluent may be in an underground chamber, or SAT beds, or above ground infiltration basins that would be determined in the HVP design phase.

Stormwater Drainage System

The HVP's drainage system will be designed to direct stormwater runoff to detention basins for detention and infiltration. To handle the increase in runoff from the HVP, detention basins would be redesigned to lower their bottoms to increase storage volumes. This onsite drainage system would be privately owned and maintained. This system will definitely increase the amount of rainfall that infiltrates the underlying groundwater. This can be approximated as follows:

- Average annual rainfall is about 19 inches. Under existing conditions, it is estimated that about one third of this infiltrates to the underlying groundwater. Over the HVP's 189.5 acres, 19 inches of annual rainfall is equivalent to a daily average of 0.27 MGD. If one third of this currently percolates to groundwater, it would amount to a daily average of 0.09 MGD

  If this is increased to an average of 70 percent of the rainfall by development of the HVP, it would amount to an increase of a daily average of 0.099 MGD to the underlying Kahului Aquifer.

Summary Conclusions and Unresolved Issues

1. Use of the Puunene-Pump 6 Well for the water supply can be accomplished by installing smaller pumps sized for the project's maximum day use. A pump installation permit will be required based on a recent policy change by the CWRM.

2. If it is assumed that all of the treated wastewater is reused for irrigation and 10 percent of this percolates to the underlying groundwater, it would amount to an increase of 0.102 MGD of recharge to the underlying Kahului Aquifer.

3. With pumpage of the Pump 6 Well equal to 1.097170 MGD at full build out, offset slightly by increased rainfall infiltration and wastewater infiltration, the net withdrawal from the Kahului Aquifer System would be 0.896 MGD.

APPENDIX ‘M’ – PRELIMINARY ENGINEERING REPORT

EXPERIENCED • INNOVATIVE • COMMITTED

Preliminary Engineering Report
Hoʻonani Village

Kahului, Maui, Hawaiʻi

Applicant:
Hoʻonani Development LLC.
21 Hansen Rd
Kahului, Hawaii 96732

Civil Engineer:
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TYLER C G K CAMPBELL
LICENSED PROFESSIONAL ENGINEER
No. 18481-C
HAWAII U.S.A.

Date: March 2026
Prepared by: Zoe Eto, P.E.
Reviewed by: T.C. Campbell, P.E.
PDG-HI Job No. H109-001

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1.0 INTRODUCTION

The purpose of this Preliminary Engineering Report is to provide an overview of the existing site conditions and infrastructure and propose preliminary design options for the site drainage, potable water and wastewater systems for the Hoʻonani Village project. This study determines the anticipated water demand and wastewater flows and presents proposed potable water and wastewater system designs. In addition, this report analyzes the existing drainage patterns at the project site and surrounding areas directly affecting the site and provides a conceptual drainage design for the proposed project that will meet the Rules for the Design of Storm Drainage Facilities in the County of Maui.

2.0 PROJECT DESCRIPTION AND SITE LOCATION

Project Description

The Applicant, Hoʻonani Development LLC, proposes the development of Hoʻonani Village, envisioned as a high-density, master-planned, mixed-use community in the Puʻunēnē-Kahului area of Central Maui on currently vacant, fallow agricultural lands. Hoʻonani Village proposed will consist of a mixed-use development with approximately 1,608 multi-family residential housing units along with a blend of commercial, office, retail, restaurant, entertainment, light industrial, and hospitality uses on an approximately 166.512-acre site in Kahului (the Project Site). All the housing units are intended to be affordable rental units offered to households earning 140 percent of area median income (AMI) or below for a minimum of 10 years. As defined by the State Hawaiʻi and the Hawaiʻi Housing and Finance Development Corporation (HHFDC), 140% AMI is the threshold for affordable housing. The Applicant is proposing to have one third of the units reserved for renters at 60% AMI or below. The Applicant intends to work with HHFDC to pursue a HRS 201H-38 Affordable Housing Approval and Low Impact Housing Tax Credit (LIHTC) funds for project cost savings. The specific breakdown of AMI levels may be adjusted based on demand and need at the time of development and potential for-sale units may be considered in the future. The 201H application process is being utilized by the applicant to reduce costs through exemptions such as entitlement application fees, expedite the entitlement process to begin construction as soon as possible, and to pursue uses such as hospitality spaces that are not allowed uses in the current and proposed County zoning designation for the project site.

The project's development will be phased over 17 years. An overview of the project's mixed uses and phasing can be seen in the Preliminary Site Plan.

Access to the project site is planned to be provided from Pūlehu Road and Hansen Road, both of which are County roadways. Improvements to these County roads will be completed to meet the requirements of the County of Maui's Street Design Manual. Infrastructure to support the project will be installed within portions of these County rights-of-way. Within the project, an internal roadway network will connect individual uses within the Project. Pedestrian and bicycle circulation will be created within the

project with on-street sidewalks and a system of multi-use paths to connect the various uses and to emphasize multi-modal transportation within the development. Additional infrastructure improvements, including drainage management in an onsite detention basin, the potential construction of an onsite wastewater treatment plant (WWTP), and an offsite water system are also proposed.

The following objectives guide the vision for Hoʻonani Village:

- Provision of housing opportunities for Maui residents across a range of income levels near existing services and job opportunities
- Provision of commercial business and light industrial spaces for local businesses to operate and expand.
- Creation of an authentic community and gathering place for Maui.

Development of Hoʻonani Village is proposed to occur in multiple phases, each introducing specific residential, commercial, industrial, and hospitality uses in a coordinated manner. The phasing plan allows infrastructure, circulation, and utilities to be extended systematically across the site while delivering severely needed residential units early in the project's buildout. The bicycle and pedestrian circulation elements will be installed within the phases and throughout the site as the commercial uses are constructed and become available for use by the residents.

The following summarizes each phase and its planned program of uses:

Phase 1 – Residential (January 2028-June 2029)
Phase 1 consists of approximately 268 multifamily rental units built at a density of 27 dwelling units per acre. This phase initiates the residential neighborhood framework and establishes key internal roadways and utility extensions needed to support subsequent phases. Additionally, the proposed off-site water system will have to be constructed and in place to serve this initial phase. The sewer system and drainage improvements will also have to be installed to manage the drainage, and sewage flows for Phase 1. Street improvements will be minimized to the maximum extent possible to limit construction costs as the initial phase incorporates the majority of the construction costs for the off-site utility infrastructure. This allows the applicant to emphasize expediting the construction timeline to get the residential units available as soon as possible.

Phase 2 – Residential & Commercial (July 3020-December 2031)
Phase 2 includes an additional 268 residential units at the same density as Phase 1, along with 5.1 acres of commercial space. These commercial pads are positioned along Pūlehu Road to serve both early residents and surrounding neighborhoods.

Phase 3 – Residential & Light Industrial (January 2033-June 2034)
This phase introduces another 268 residential units and approximately 9.5 acres of light industrial space. The industrial component is located along the western edge of the

property, aligning with existing industrial uses near Hansen Road and the former sugar mill.

Phase 4 – Residential & Office (July 2035-December 2036)
Phase 4 adds 268 more residential units and develops 4.6 acres of office space, responding to demand for employment space in Central Maui. This phase strengthens the "live-work" balance by placing jobs within walking proximity to housing.

Phase 5 – Residential & Commercial / Entertainment (July 2035-December 2036)
Phase 5 includes 268 additional residential units and a significant mixed commercial area incorporating retail, restaurant, food hall, and entertainment uses totaling approximately 11.2 acres. These facilities help establish the project's commercial identity and serve both on-site residents and the wider island community.

Phase 6 – Residential (January 2037-June 2038)
Phase 6 completes the primary residential buildout with 268 additional units, supporting the project's intended role in addressing Maui's regional housing demand.

Phase 7 – Hospitality (January 2037-June 2038)
Phase 7 introduces a proposed 240-key hospitality development, designed as a dual-brand hotel with shared amenities. This phase supports visitor needs near the airport and commercial centers while generating local employment opportunities.

Phase 8 – Light Industrial & Office (July 2039-December 2040)
Phase 8 includes approximately 13.9 acres of light industrial space and 5.4 acres of office space, expanding economic and employment opportunities and complementing the adjacent Maui Business Park corridor.

Phase 9 – Recreation/Entertainment, Civic, and Community Uses (January 2041-June 2042).
Phase 9 incorporates major recreation and entertainment uses. Additional parcels are designated for future civic or commercial uses totaling roughly 10.4 acres, allowing flexibility to serve long-term community needs.

Site Location
The project site is located on an approximately 166.512-acre portion of TMK No. TMK (2) 3-8-006-004, which is 237 acres in total. The specific parcel designation for the project site is currently TMK (2) 3-8-006-004-0005, also known as Unit 2C of the Maui Economic Opportunity Condo. It is located at 21 Hansen Road, Kahului, HI 96732. The overall TMK parcel (2) 3-8-006: 004 is currently undergoing subdivision, wherein the proposed project site, currently identified as Unit 2C, has been identified as Lot 2-C-4-C-1-E-1 on the Preliminary Subdivision Plan for the First Assembly of God Subdivision that was approved by the County on March 31, 2025. See Appendix A.

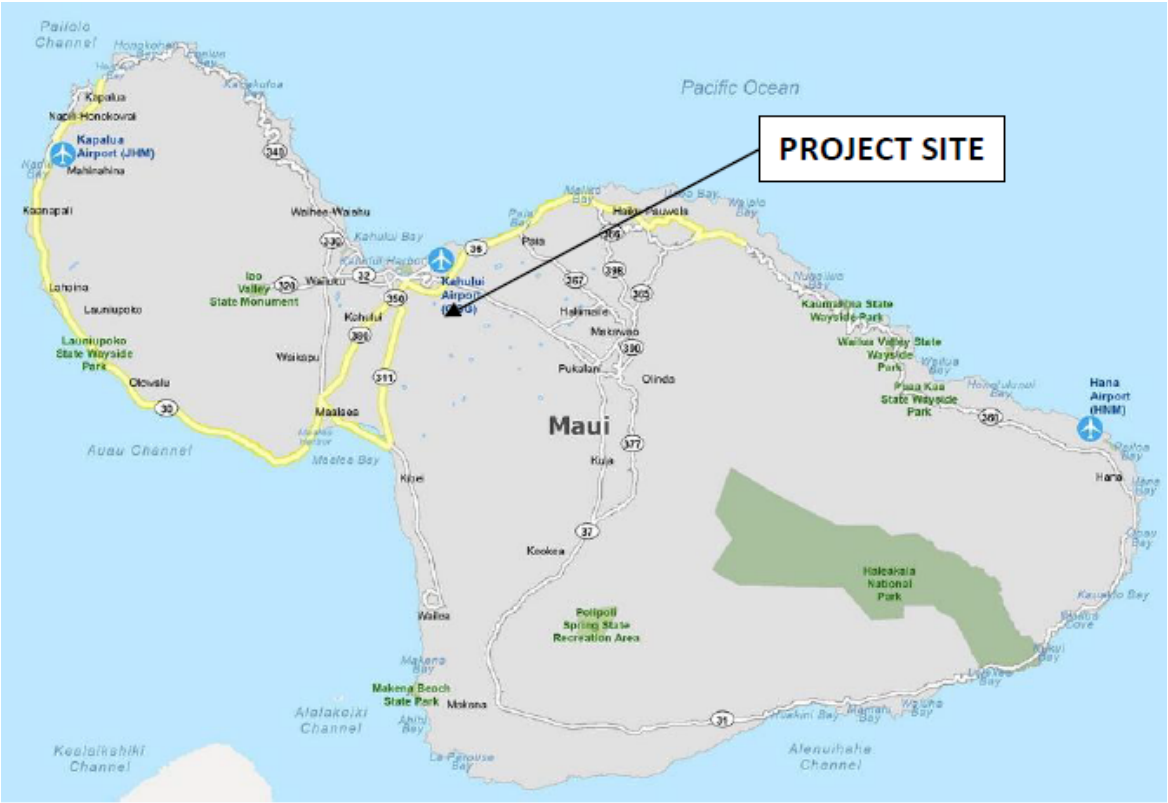


Figure 1: Island Map

The project site is located in the Puʻunēnē area in Kahului. See the Figure 1 above for the approximate location on the island of Maui. Currently, the project site can be accessed from Hansen Road to the south or Pūlehu Road to the east. Located just north of the project site is the Puʻunēnē Shopping Center and Lowe's Home Improvement store as well as undeveloped land, which is the proposed site of the Maui Business Park development. West of the project site is Puʻunēnē Avenue with agricultural properties located to the east and south. The Alexander and Baldwin (A&B) Sugar Museum in Puʻunēnē is located at the southwest corner of the property. See Figure 2: Property Location Map below for more details on the site location.

FIGURE 2

PROPERTY LOCATION MAP

SOURCE: COUNTY OF MAUI QPUBLIC GIS POWERED BY ESRI.

Project HOONANI VILLAGE	**Designed by** TCC	**Date** 08/2024	PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING · LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU, HAWAII PH: 808.400.5959 WWW.PD-GRP.COM	**Sheet** 1 of 1
No. H109-001	**Drawn by** TCC	**Date** 08/2024		
	Horiz. Scale:	**Vert. Scale:**		
		Type PLANNING		

3.0 EXISTING SITE CONDITIONS

The project site has been used for agricultural purposes in the past but has no active agricultural work being done on site. The Puʻunēnē area has a rich history deeply intertwined with the sugar industry. The property was once part of the Hawaiian Commercial & Sugar Company's (HC&S) sprawling sugar plantation, which operated for over a century until its closure in 2016. The Puʻunēnē Sugar Mill, built in 1901, is located adjacent to the project site to the southwest. According to the Agricultural Impact Report for the project, the site has remained uncultivated since the closure of the mill.

The project site is currently unactive agricultural land without any existing structures. However, there are several existing gravel and asphalt farming roads on site with culverts that span these roads to allow irrigation ditches to convey water across the site as needed. There are no existing streams or wetlands on site. The nearest streams are the Kalialinui stream and Keahua stream that flow from the south to the north on the eastern side of Pūlehu Road. Existing cutoff ditches that are part of the agricultural ditch system in the area are located upstream of the project site and help minimize upstream runoff flow to the site.

There are existing overhead power lines that provide power to customers located both mauka and makai of the project site. There is also potable water piping running south to north through the western portion of the property, but outside of the project site boundaries. Currently, there is no existing wastewater infrastructure on site. The existing water and wastewater infrastructure can be found in Figures 6 and 7 below, as well as in Appendix ‘A’.

3.1 Site Topography

The project site is located on the gradual slopes of Haleakalā. The existing topography on site slopes from the southeast to the northwest. Grades on site are gentle, generally ranging from 1-2% with areas of occasionally steeper slopes. The site has a relative high elevation point of approximately 78 feet at the southeastern corner of the site, and a relative low point along the north property line with an elevation of approximately 33 feet.

3.2 Soil Type

The predominant soils found throughout the site are Ewa Silty Clay Loam (99.5% of the site), which has a corresponding hydrologic soil group (HSG) B designation, as shown on the attached Natural Resources Conservation Service (NRCS) soil survey. Soils classified as Group B have moderate infiltration rates when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission. A very small portion of the site has Molokai Silty Clay Loam, which has a corresponding HSG C designation. See the attached NRCS Soil Survey in Appendix ‘A’.

A geotechnical investigation was completed on site by Hawai'i Geotechnical Consulting, Inc. to investigate the existing soil conditions. The recommendations from the geotechnical report will be utilized for the future construction of the project. The Geotechnical Report will be submitted as an Appendix in the DEIS and FEIS. Two percolation tests were conducted on site to determine the existing soil's ability to percolate runoff. On the east side of the site, the test resulted in 11.41 minutes per inch of water drop, which is approximately 5.25 inches per hour. On the west side of the site, the test resulted in 5.93 minutes per inch of water drop, which is approximately 10.10 inches per hour. The percolation test results are attached under Appendix 'G'.

3.3 Flood & Tsunami Zone and Sea Level Rise

The project site lies in FEMA Zone X and does not contain any FEMA designated Special Flood Hazard Areas (SFHAs). The Flood Hazard Map, which is shown below in Figure 3 and attached in Appendix 'A', was generated using the State of Hawai'i, Department of Land and Natural Resources (DLNR), Flood Hazard Assessment Tool. This zone designates the site as an area outside the 0.2% annual chance floodplain. The site is located within the Extreme Tsunami evacuation zone.

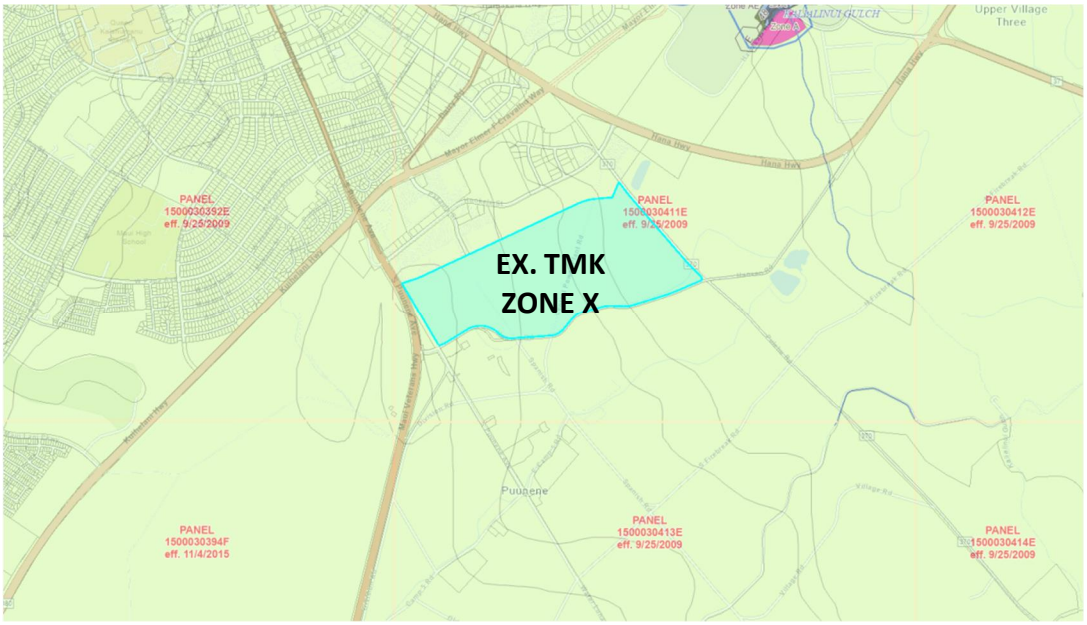


Figure 3: Flood Hazard Map

The project site is well removed from the potential affected area with 3.2 feet of Sea Level Rise per the State of Hawai'i Sea Level Rise Online Tool. The potentially affected area in Kahului is isolated immediately adjacent to the shoreline, and near the Kanaha Pond area. The potentially affected area remains north of Hana Hwy. and is not anticipated to foreseeably impact the project site. Sea Level Rise will be considered during the project design where practical. There are no current mitigation measures anticipated for any impacts from Sea Level Rise.

3.4 Roadways and Traffic

The project site is adjacent to Pūlehu Road to the east and Hansen Road to the south. Located in Kahului, there is a network of major highways, arterial roads, and local streets that serve the various residential, industrial and commercial areas. A complete Traffic Impact Analysis and Report was completed by Fehr and Peers to analyze the proposed development and will be included as an appendix in the DEIS and FEIS. Below are brief descriptions of the existing street system near the site.

Hansen Road
Hansen Road is a local industrial collector roadway that functions as an east-west connector between Hāna Highway (Route 36) to the east and Maui Veterans Highway (Route 311) to the west. It is primarily a two-lane undivided facility, with an approximate pavement width of 24 to 30 feet, designed to accommodate both passenger vehicles and heavy trucks serving adjacent industrial and commercial land uses. The corridor lacks formal pedestrian infrastructure such as sidewalks or bike lanes. Hansen Road provides alternative routes for freight and service vehicles, helping reduce congestion on nearby arterial highways and improving circulation within the commercial and industrial district. The County of Maui classifies this street as a Major Urban Collector on the County's overall transportation plan.

Pūlehu Road
Pūlehu Road is classified as a rural collector roadway that extends generally in the northwest to the southeast direction from Kahului to Kula. It is predominantly a two-lane undivided road, with pavement widths typically ranging from 20 to 24 feet, designed to accommodate mixed traffic, including agricultural vehicles, passenger cars, and occasional trucks. A short section of the street adjacent to the existing Safeway is fully built out with one-lane in either direction, a center turn lane, a bike lane in either direction and sidewalks on both sides. Most of Pūlehu Road lacks formal pedestrian or bicycle facilities. Pūlehu Road plays a key role in supporting rural mobility providing a route from the agricultural and residential lots in Kula down to the commercial areas in Kahului. The County of Maui also classifies this street as a Major Urban Collector on the County's overall transportation plan.

Maui Veterans Highway
Maui Veterans Highway, designated as Route 311 and formerly known as Mokulele Highway, is a principal arterial roadway in Central Maui that runs in a north-south direction, connecting Kahului to Kīhei and other communities in South Maui. It is a four-lane divided highway (two in either direction), with typical pavement widths of approximately 60 to 80 feet, designed to accommodate high-capacity traffic volumes including commuter, freight, and visitor travel. The highway features a landscaped median and limited access points, enhancing safety and facilitating efficient regional mobility. Non-motorized facilities, such as shoulders suitable for bicycling, are present along some segments, although pedestrian activity remains limited due to the road's high-speed, regional function. Maui Veterans Highway is critical for supporting economic development, reducing congestion on local

roadways, and providing a primary evacuation and transportation route between Central and South Maui.

Mayor Elmer F. Carvalho Way

Mayor Elmer F. Carvalho Way (Route 380) is classified as a local collector roadway that runs in the southwest to northeast direction. West of the intersection with Maui Veterans Highway, Mayor Elmer F. Carvalho Way is named Kūihelani Highway. The Mayor Elmer F. Carvalho Way connects Puʻunēnē Ave. to the Kahului Airport. The roadway generally consists of two travel lanes in each direction, with a typical cross-section width of approximately 40 to 60 feet, depending on the segment. It features signalized intersections and controlled access points to adjacent properties, supporting moderate traffic volumes typical of urban commercial areas. There are no sidewalks along either side for the majority of the road. This road serves as the main connection from the Airport to Honoapiʻilani Highway to the southwest that leads to the Lahaina and Kaʻanapali area.

Hāna Highway

Hāna Highway, designated as Route 36, is a principal arterial roadway that originates in Kahului at E. Kaʻahumanu Ave., and extends eastward along Maui's north and northeast coastline (the famous Road to Hāna), ultimately reaching the town of Hāna. Within the urban limits of Kahului, it is a four-lane divided highway approximately 60 to 80 feet wide, designed to handle significant regional traffic volumes, including commercial, commuter, and tourist travel. As it leaves the urban area and transitions into rural terrain, Hāna Highway narrows to a two-lane undivided facility, with roadway widths often ranging from 18 to 24 feet and numerous one-lane bridges. Pedestrian and bicycle facilities are generally limited through the stretch of the road that is in the Kahului area. The road mainly serves to transport drivers from the Kahului town area to Pukalani and the other up-country neighborhoods via Haleakala Highway.

Hoʻokele Street

Hoʻokele Street is classified as a major collector roadway that runs in a north-south alignment between Hāna Highway (Route 36) and Maui Veterans Highway (Route 311). The roadway typically features four lanes, two in each direction, with a divided median in several segments, and an overall pavement width ranging from approximately 60 to 80 feet. It serves as a critical connector between regional highways and local commercial, retail, and emerging residential developments, contributing significantly to local circulation and accessibility within Central Maui. The roadway is equipped with sidewalks and designated bicycle lanes in portions of its corridor. Hoʻokele Street functions as an essential urban arterial-collector hybrid, facilitating efficient movement between major transportation corridors and serving as a backbone for ongoing commercial and residential growth in Kahului.

<u>Existing Bicycle and Pedestrian Facilities</u>

The project site is located adjacent to Pūlehu and Hansen Roads that function as agricultural two-lane roads with no bicycle lanes or sidewalks for pedestrian use. The existing road cross

sections are specifically designed for the low volume agricultural nature of the surrounding area. Along Pūlehu Road, as the road heads north towards Hoʻokele Street, the road has full street improvements including sidewalks on both sides and bicycle lanes. Additionally, Hoʻokele Street is built out with sidewalks on both sides for pedestrian uses but does not have separate bicycle lanes. In general, the area surrounding the site is commercial and agricultural in nature and has an overall lack of bicycle and pedestrian facilities. As the area is built out and more bicycle and pedestrian circulation is needed, new road improvements will be recommeded to include such facilities to promote safe active transporation.

Existing Public Transit Facilities

The Maui Bus Public Transit System currently provides transit service within the study area through three bus routes: Route 5, Route 6, and Route 39. Each of these routes serves distinct corridors and offers connections to various destinations originating from the Queen Kaʻahumanu Center, which functions as a central transit hub for the region.

Routes 5 and 6 both operate in loop configurations, beginning and ending at Queen Kaʻahumanu Center. These routes travel in opposite directions around their respective loops, thereby providing bi-directional service coverage within the corridor. Service frequency for both Route 5 and Route 6 is every 60 minutes on weekdays and weekends, ensuring a consistent level of transit availability throughout the week. Within the study area, the closest bus stops serving these routes are located at the intersections of Hoʻokele Street with Pākaula Street, Alaihi Street, and Pūlehu Place. However, it is important to note that these stops lie slightly beyond a one-half mile (½ mile) walking distance from the boundaries of the project site, which may limit their convenience and attractiveness for potential transit users associated with the project.

In addition to Routes 5 and 6, Route 39 also provides transit service in the vicinity of the study area. This route operates as a loop originating from Queen Kaʻahumanu Center, extending southward from Kahului to Kēōkea and including key intermediate stops in Kula and Pukalani. Route 39 offers service every 90 minutes on both weekdays and weekends, maintaining a regular schedule for passengers traveling longer distances along the Upcountry corridor. The nearest bus stop for Route 39 in relation to the study area is situated at the intersection of Hoʻokele Street and Pākaula Street. This stop is located approximately one-half mile from the northern edge of the project site, similarly, posing a moderate walking distance for prospective riders from the project area.

Given the distances of these transit stops from the project site, it is anticipated that the proposed project will not generate a substantial increase in transit demand that would exceed the capacity of the existing transit network. Furthermore, while the General Plan includes a proposed Conceptual Transit Corridor in proximity to the project area, this planned corridor is not expected to influence or impose any significant impact on the proposed development at this time.

3.5 Existing Electrical and Communication Facilities

The project site has existing overhead lines on site that are within existing easements. Additional overhead lines can be found along Hansen Road and Pūlehu Road. These powerlines and overhead utility lines will either be vacated or relocated during development to continue to service all customers in the area. Hawaiian Electric Company (HECO) is the main power supplier in the Kahului area. The existing communication companies in the area include but are not limited to Spectrum, Hawaiian Telcom, Starlink, T-Mobile Home Internet, and Verizon Fixed Wireless. The applicant will work with the existing utility companies to serve the development.

4.0 EXISTING DRAINAGE CONDITIONS

The predeveloped drainage basin is 195.226 acres in size with the existing runoff on site flowing down the slopes of Haleakalā from the south to the north. Per the County of Maui's Title MC-15, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui, the site will be analyzed using the 100-year, 24-hour storm event. According to 15-04-05 Recurrence Interval (d), the Natural Resources Conservation Service (NRCS) hydrograph method will be utilized to quantify the flow rates and flow volume for the site. The State of Hawaiʻi falls under the Type I rainfall for this method of analysis. Per the National Oceanic and Atmospheric Administration (NOAA) Rainfall Data for the project site, an approximate rainfall depth of 9.17 inches was used for this storm event. HydroCAD software was used to model hydrographs for the various existing basins and to quantify the flow rates and volumes. The complete analysis of the existing drainage conditions can be found in Appendix 'B'.

The project site was divided into two (2) existing drainage basins notated as E1 and E2. Each of these basins corresponds with an existing discharge point. See the Pre-Developed On-Site Discharge Point Analysis below for additional details. The attached Pre-Developed Basin Map in Appendix 'B' shows the boundaries and acreage for these existing basins on site. Additionally, there are two (2) upstream basins that currently flow towards the site contributing to the existing drainage flows and volumes. These basins are notated as O1 and O2. Figures 4 and 5 below show the Pre-Developed Basin Map and the Pre-Developed Upstream Basin Map, respectively, which are also attached in Appendix 'B' shows the boundaries and sizes for these basins.

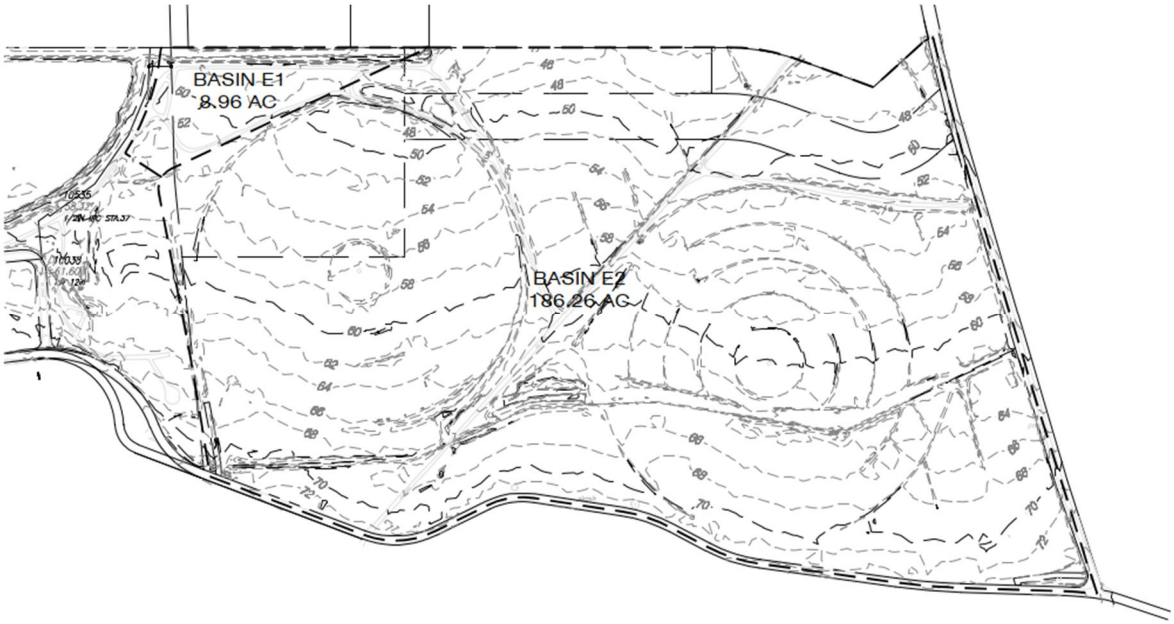


Figure 4: Pre-Developed Basin Map

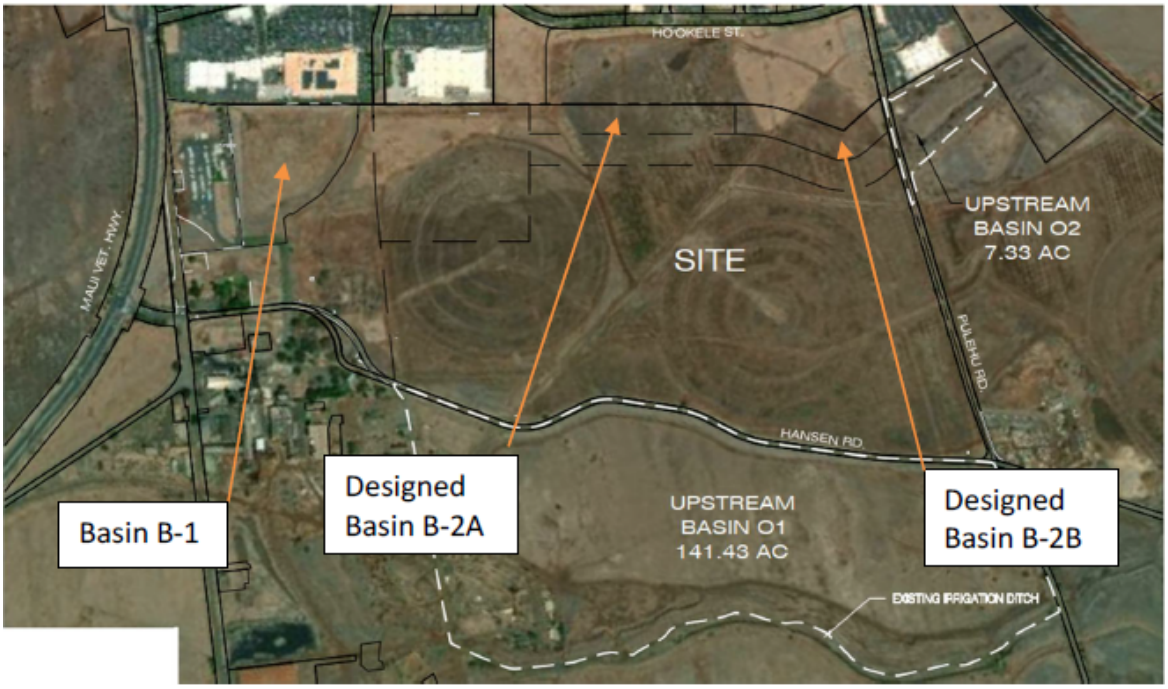


Figure 5: Pre-Developed Upstream Basin Map

A runoff curve number of 58 and 98 corresponding to a ground cover described as meadows and paved roads with curbs and sewers, respectively for type B soils was used in the SCS TR-20 Method. As the percentage of C soil was insignificant, the runoff curve number for C soil was not utilized for the existing ground coverage of the site.

Utilizing sizes, cover type, and time of concentrations for each basin, a pre-developed flow rate was calculated in HydroCAD for the 100-year, 24-hr storm event. The basins on site, E1

and E2, have a cumulative pre-developed flow rate of approximately 131.48 cfs and a flow volume of 64.83 acre-feet. Below is **Table 4-1** for the breakdown of the flows to the various discharge points on site.

Table 4-1: Pre-Developed On-Site Discharge Point Analysis					
Discharge Point #	**Basin Label**	**Basin Area (AC)**	**Pre-Developed Flow Rate (cfs.)**	**Pre-Developed Volume (Ac-ft.)**	**Type of Flow**
Basin B-2A & B-2B	E1	8.963	15.55	2.98	Sheet flow to existing drainage ditch.
Basin B-2A & B-2B	E2	186.263	115.93	61.85	Sheet flow from south to north to drainage Basin B-2A and B-2B.
TOTAL		**195.226**	**131.48**	**64.83**	

The two (2) upstream basins have a total basin area of 148.753 acres. These basins contribute a total flow rate of 97.61 cfs and flow volume of 49.62 acre-feet to the project site. **Table 4-2** below outlines the breakdown of flow from each drainage area.

Table 4-2: Pre-Developed Upstream Basin Analysis					
Discharge Point #	**Basin Label**	**Basin Area (AC)**	**Pre-Developed Flow Rate (cfs.)**	**Pre-Developed Volume (ac-ft)**	**Type of Flow**
Hansen Road	O1	141.426	88.02	46.96	Sheet flow towards Hansen Road to be collected in new storm system on Hansen Road and conveyed to a detention pond.
Basin B-2A & B-2B	O2	7.326	9.59	2.66	Sheet flow to Pūlehu Roadside ditch to be discharged by pipe in existing basin B-2B.
TOTAL		**148.753**	**97.61**	**49.62**	

The existing drainage condition in the area including the project site and the upstream basins has been analyzed in several different storm drainage reports. The most recent of the reports was for the Maui Business Park Development that is located just makai of the Ho'onani Village project site. Three (3) detention basins were described and designed with the Maui Business Park development on the TMK where Ho'onani Village is currently subdividing. The locations of these basins are called out above on Figure 5. The first basin is notated as Basin B1. This existing basin is located just mauka of Target and the Pu'unēnē

Shopping Center in Kahului. This basin currently has about 87.6 acre-feet in available storage volume. However, this basin will not be used to collect stormwater runoff from the proposed Ho’onani Village as it is located off the project site. There is potential in the future that agreements with the adjacent property owners could be made to utilize this existing basin to manage drainage from the Ho‘onani Village development. At this time there is no intent to utilize existing Basin B-1.

On the Ho‘onani Village project site there are currently no existing detention basins. Existing runoff flows down the mountain towards the northern property line. The Maui Business Park development has been approved by the County of Maui and has designed detention basins B-2A and B-2B in a drainage easement on the Ho‘onani Village property. These basins have not been constructed yet but will be constructed prior to the construction of Ho‘onani Village. These basins are designed to manage the pre-development flow for the Ho‘onani Village site and upstream basins, O1 & O2. These basins are currently designed to function in series together with a 60-inch drain line connecting the two basins to function as one larger basin. These basins are currently designed to have a volume of about 109.14 acre-feet in available storage. However, pre-development calculations for Ho’onani Village predict approximately 114.45 acre-feet of stormwater runoff volume, indicating that the basins are undersized for the flows that will be conveyed to the basins. Both basins were designed with the same top and bottom elevations. The top of the basins is at the 46-foot elevation with a berm around the perimeter at the 47-foot elevation and the bottom of the basins are at the 32-foot elevation. See **Table 4-3** below for additional flow details. As the basins are currently undersized as designed, it is proposed that the volume of the basins will be increased with the Ho‘onani Village project to manage the developed drainage conditions for the site and upstream basins. The proposed improvements to these designed basins show the project’s ability to manage all the stormwater associated with the development on site and meet the various regulations of the County of Maui. The Proposed Drainage Conditions are discussed below in section 8.0.

Table 4-3: Pre-Developed Designed Detention Basins

Basin Label	Available Storage (Ac-ft.)	Pre-Developed Flow Rate	Pre-Developed Volume	Available Volume (Ac-ft)
Basin B-2A & B-2B	109.14	229.09	114.45	-5.31
TOTAL	**109.14**	**229.09**	**114.45**	

5.0 EXISTING WATER SYSTEM

According to the County of Maui’s Department of Water Supply’s (DWS) comment letter in response to the Ho‘onani Village Environmental Impact Statement Preparation Notice (EISPN) dated December 23, 2025, there is limited existing water infrastructure adjacent to

the project site. DWS records show that there is an existing 6-inch ductile iron pipe along Old Puʻunēnē Road that also runs along a portion of Hansen Road fronting the property TMK. Connected to the 6-inch waterline is an 8-inch ductile iron waterline that traverses the property, just west of the project site boundary, and connects to a 12-inch waterline along Hoʻokele Street, which services the Puʻunēnē Shopping Center and other surrounding businesses. Per DWS, the water service to these lines is most likely provided by the Mokuhau wells that feed into 16- and 18-inch transmission lines. The GIS map of the existing infrastructure adjacent to the project site is shown in Figure 6 below, as well as attached in Appendix 'A'. However, the GIS data provided is for preliminary coordination purposes only and the location data and system capacity will be further studied as design progresses.

Figure 6: Existing Water System

Records show that there are no existing potable water systems or structures located in Pūlehu Road or the remainder of Hansen Road, which directly border the site. However, the Maui Business Park development directly north of the project site has a private well and water system located on their property for both domestic and fire use. This well is notated as Puʻunēnē Pump 5 and is located near the intersection of Hoʻokele Street and Pūlehu Road. Additionally, there are existing fire hydrants at the terminus of Pākaula Street and along Hansen Road, across the A&B Sugar Museum.

As the site was once used for agricultural purposes, it is assumed that at one time there was an irrigation system across the site to provide water to the crops on site. This system has since been removed as there are no longer any known structures or piping on site. However, there is an existing DWS irrigation meter located along Hansen Road, just east of the A&B Sugar Museum.

A Water Resource Assessment was completed by Tom Nance Water Resource Engineering (TNWRE) indicates that the project site is located within the Kahului Aquifer. DWS records also show that there is Puʻunēnē-Mill Pump 8 (State Well No. 6-5227-004) and Puʻunēnē-Pump 19 (State Well No. 6-5227-005) to the southwest of the Hoʻonani Village site.

Additionally, there is Puʻunēnē-Pump 6, also known as Hawaiʻi Commercial and Sugar Company (HC&S) Pump 6 or Shaft 18, located within TMK (2) 3-8-006:001. The applicant is currently working to complete an agreement to utilize this existing water source to potentially serve the proposed Hoʻonani Village development. The excerpt below is from the Water Resource Assessment and details the existing conditions of Pump 6.

"The Puunene-Pump 6 Well is a former HC&S Well pumping facility. Ground elevation at the well site is 182 feet. The facility consists of a vertical tunnel with elevator for access and two major horizontal skimming tunnels. The two plantation pumps of nominal 10 and 15 MGD capacities, are still installed. Over the Well's period of use (from construction in 1934 to 2014), the salinity of the water pumped varied from a specific conductance of 1300 to 2000 µS/cm, equivalent to chlorides on the order of 350 to 550 MG/L. As measured on August 28, 2025, the specific conductance at the static water surface was 1200 µS/cm and it increased slightly to 1230µS/cm at the bottom of the water, equivalent to about 325 to 330 MG/L as chlorides. The well is located in the Kahului Aquifer which has a Commission on Water Resource Management (CWRM) designated sustainable yield of 1.0 MGD. Historically, in the plantation era, total aquifer pumpage was as high as 50 MGD and it is currently about 6 to 7 MGD. Despite the fact that ongoing pumpage exceeds the regulatory sustainable yield, the CWRM has continued to issue Well Construction permits. The plantation pumps will not be used as their capacities far exceed the HVP's required supply."

In the existing condition, Pump 6 can provide sufficient supply of water that could serve the project. The Water Resource Assessment was completed for the known water demand for the project. As the final pumpage amount is subject to change, additional pump testing and water sample testing may be completed in the future to assess the impacts of a larger pumpage amount. The proposed modifications to the existing Pump 6 are discussed in section 9.0 below.

6.0 EXISTING WASTEWATER SYSTEM

According to the County of Maui Department of Environmental Management's (DEM) comment letter, dated December 12, 2025, in response to the Hoʻonani Village EISPN, the project site is outside of the County's current sewer service system. The Hoʻonani Village development site does not have any existing wastewater lines or structures within it. However, according to the County of Maui's GIS for the Wastewater Infrastructure, the existing lot has some private wastewater lines and structures on the western side towards the existing A&B Sugar Museum. Additionally, private wastewater lines are located in Hoʻokele Street that serve the various phases of the Maui Business Park development. The private wastewater lines are a combination of 8- and 10-inch sewer mains that connect to

the public system on the makai side of Mayor Elmer F. Carvalho Way. Public sewer lines and structures are also located in Pākaula Street to serve the existing users in the Puʻunēnē Shopping Center. The public and private sewer systems flow to the Wailuku/Kahului Wastewater refuse facility. Figure 7 below shows the existing wastewater infrastructure directly surrounding the project site. The project development will analyze the potential connection to both these public and private systems as well as the feasibility of constructing a new private sewer system and wastewater treatment plant. Figure 7 below and attached in Appendix 'A' shows the current existing County of Maui Wastewater Infrastructure.

Figure 7: Existing Wastewater Infrastructure

The comment letter from DEM noted that these existing sewer lines in the public system do not have the necessary capacity at this time to serve the Hoʻonani Village site. Additionally, the letter states that there is not enough capacity at the Wailuku/Kahului Wastewater Reclamation Facility (WWRF) to accept additional flow at this time. However, capacity may be available in the future after the completion of the Central Maui Wastewater Treatment Plant (WWTP) is constructed and a portion of the existing flows diverted to the new WWTP. Additionally, separate agreements are possible with the County of Maui to connect the early phases of the development to the existing public sewer system.

7.0 PROPOSED SITE CONDITIONS

7.1 Site Grading

The scope of grading outlined in this PER is conceptual and to aid in the understanding of the proposed drainage systems. Final grading of the various phases of Hoʻonani Village will be designed at a later time. The intent is to have finished grades as close to existing conditions as possible, and to direct stormwater runoff toward existing and proposed

drainage systems. The proposed drainage solutions are outlined in Section 8.0 Proposed Drainage System of this PER.
Grading and erosion control for the project will meet Maui County Code Chapter 20.08 – Soil Erosion and Sedimentation Control, as well as the Hawaiʻi Administrative Rules (HAR) Chapter 11-54 Water Quality Standards. In addition, the project will need to obtain a National Pollutant Discharge Elimination System (NPDES) permit as the project will disturb an area greater than an acre and follow the federal Clean Water Act. As part of the plan set there will be erosion and sediment control plan that outlines all of the erosion and sediment control good house keeping measures and best management practices (BMP).

Prior to grading, the site will need to be cleared of all vegetation, structures, debris and other obstructions. According to the Geotechnical Investigation Report by Hawaiʻi Geotechnical Consulting, Inc., the site's topsoils have been previous agriculturally disturbed. These soils tend to be soft or loose and dry, which would result in future settlement if not treated. Therefore, the topsoil will need to be excavated to within 12 inches of the bottom of the agriculturally disturbed soils, especially in areas of fill or where foundations or roadways will be located. The removed soils can be reused on site as long as all organics and rocks larger than 6 inches are removed. The final 12 inches of soils will be scarified and moisture conditioned in-place prior to being compacted. Per the Geotechnical Investigation Report, all fill should be placed in lifts no more than 12 inches for the entire width of the area being filled, moisture conditioned to 3 percent of the material's optimum moisture content and compacted to at least 90 percent maximum dry density. Fill slopes steeper than 5H:1V should have benches that extend through any disturbed slope materials into the native soils.

Mass grading on site will likely be phased with the construction build out. The mass grading will include coring out access and future roads to serve the project, adjusting grades to have the utility systems match future finished grades, creating flat pads for the buildings, coring out the parking areas, and grading the open spaces. The grading on site will be typical with the specific use that is being developed within the designated phase. The use of retaining walls will be minimized to the maximum extent practical. Standard trenching operations will also be completed to install underground utility systems. Grading plans will be completed and approved by the County of Maui prior to construction.

Pavement design recommendations were provided by Hawaiʻi Geotechnical Consulting, Inc., for the internal, private roadways throughout Hoʻonani Village. The recommendations are based on the assumption that the residential areas will include passenger and light truck traffic, while the commercial and industrial areas will include light to heavy truck traffic. The pavement section recommendations for flexible and rigid pavements are outlined below. The rigid pavement will be Portland cement concrete, which is ideal for entry points and other locations where tight-turning heavy vehicles are expected. All pavement subgrades should be sloped to drain and compacted to at least 90 percent of the material's maximum dry density.

Flexible Pavement for Residential Areas:
2.5-inch Asphaltic Concrete
6.0-inch Untreated Base
8.5-inch Total Pavement Thickness

Flexible Pavement for Industrial Areas:
3.0-inch Asphaltic Concrete
8.0-inch Untreated Base
11-inch Total Pavement Thickness

Rigid Pavement for Residential Areas:
6.0-inch Concrete Pavement
6.0-inch Untreated Base
12-inch Total Pavement Thickness

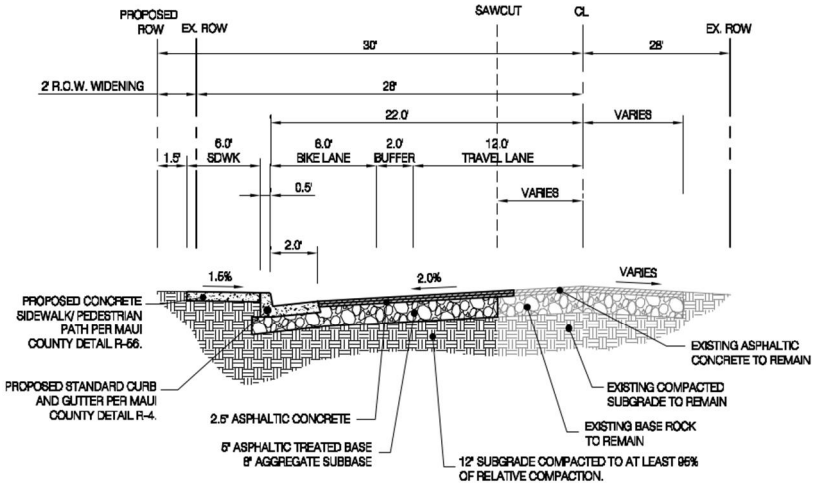
Rigid Pavement for Industrial Areas:
6.0-inch Concrete Pavement
8.0-inch Untreated Base
14-inch Total Pavement Thickness

Final grading of the site will be designed to ensure positive drainage away from structures and roadways and toward designed drainage structures such as swales, inlets, or catch basins. Additionally, grading for hardscapes such as walkways and parking facilities will be according to the Americans with Disabilities Act (ADA) standards for Accessible Design.

7.2 Street Improvements

Pūlehu Road and Hansen Road will be the two main roadways that service Hoʻonani Village. Preliminary traffic studies conducted by Fehr and Peers state that both Pūlehu Road and Hansen Road have adequate sight distances and infrastructure, so no additional improvements would be required on either road to properly serve the development. However, although not necessary, both the Pūlehu Road and Hansen Road rights-of-way will be widened to better accommodate users outside of vehicular traffic. Hansen Road and Pūlehu Road are considered major urban collectors in the County of Maui's overall transportation plan. According to the County of Maui Street Design Manual, major collectors should have a 60-to-70-foot rights-of-way with pavement widths of 40 to 51 feet. Included within the pavement will be travel lanes in both directions, as well as designated parking and bike lanes. Outside the pavement should have landscaped buffer zones and sidewalks for pedestrian use. The proposed street improvement sections are further detailed below. However, they are still under review and subject to change throughout the design and entitlement processes. All roadway improvements will be designed to meet the standards outlined in the County of Maui Street Design Manual, as well as according to the Standard Details for Public Works Construction.

Currently, the Pūlehu Road right-of-way extends 28 feet from the roadway centerline to the Hoʻonani Village property. The right-of-way will be widened by 2 feet to include a vehicular buffer zone, bike lane, curb and gutter, sidewalk and buffer zone. These additions will match the already improved section of Pūlehu Road from the intersection of Hoʻokele Street and Pūlehu Road. Figure 8 below depicts the typical section of the widening of Pūlehu Road.



TYPICAL MAJOR COLLECTOR STREET SECTION
PULEHU ROAD
NTS
(PULEHU ROAD SECTION TO MATCH STANDARD MAUI COUNTY PAVEMENT SECTION FOR AN URBAN MAJOR COLLECTOR (CLASS "A" - PAVEMENT STRUCTURE), SEE MAUI COUNTY DETAIL R-54)

Figure 8: Pūlehu Road Widening Typical Section

The Hansen Road right-of-way will also be widened to include the same improvements as Pūlehu Road. However, since the right-of-way for Hansen Road only extends 20 feet from the roadway centerline into the Hoʻonani Village property, the property line will need to be realigned to 30 feet from the roadway centerline. Once final street improvements are determined, additional right-of-way needed for the road improvements will be dedicated to the County in the future by the landowner. The proposed improvements to Hansen Road are shown below in Figure 9.

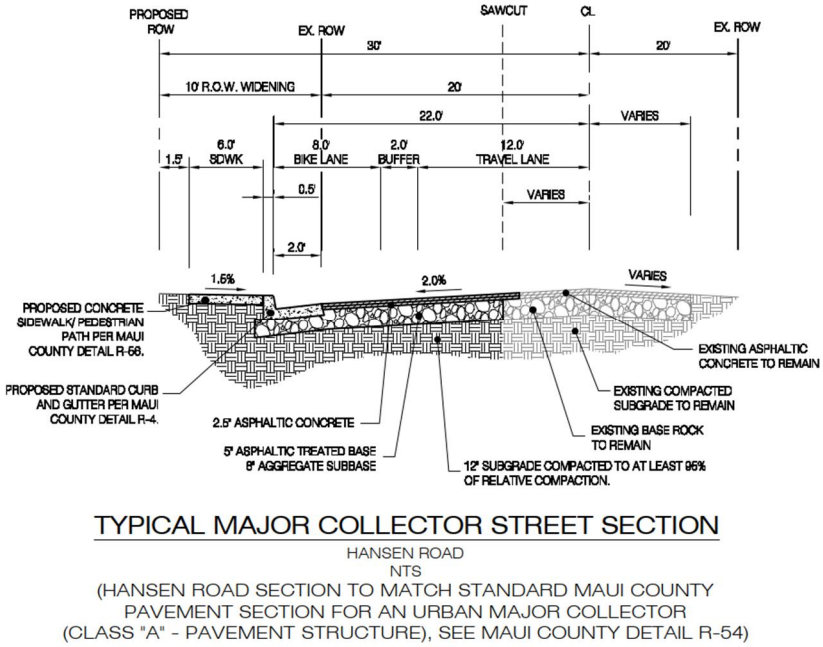


Figure 9: Hansen Road Widening Typical Section

The project also intends to connect to Pākaula Street, which currently ends approximately 200 feet from the northern property line. The proposed connection will include a sidewalk on one side of the roadway with a bicycle and pedestrian pathway on the other.

In addition to the widening of both Pūlehu Road and Hansen Road, the County of Maui has intentions of upgrading the Pūlehu Road and Hansen Road intersection to meet the complete streets and improvements requirements under the I Mua Central Maui Transportation Study. Complete streets and improvements provide safe travel options for all users. As part of these upgrades, the intersection of Pūlehu Road and Hansen Road will be changed from a four-way stop intersection to a single lane roundabout with single lane approaches, which is sufficient for traffic flow per the Fehr and Peers Transportation Impact Analysis Report.

7.3 Proposed Roadways and Traffic

Within the Ho'onani Village development, there will be a series of private roadways. The roadways will be constructed as one of the three (3) typical sections, which will be categorized as street type A, B or C. The proposed streets will be vertically and horizontally designed to meet the American Association of State Highway and Transportation Officials (AASHTO) and County of Maui standards to provide access to the various buildings.

Street type A will be for local streets with parking on both sides. The right-of-way will be 58 feet wide and includes a 10-foot-wide travel lane followed by 8-foot-wide parking area that overlaps with the 2-foot-wide gutter and 6-inch curbs in both directions. Outside of the curb, there will be a 4-foot-wide planter, 5-foot-wide sidewalk and 1.5-foot-wide buffer

zone on one side of the roadway, while the other side will have a 10-foot-wide multi-use path and a 6-inch buffer zone. Figure 10 below reflects the typical section for street type A.

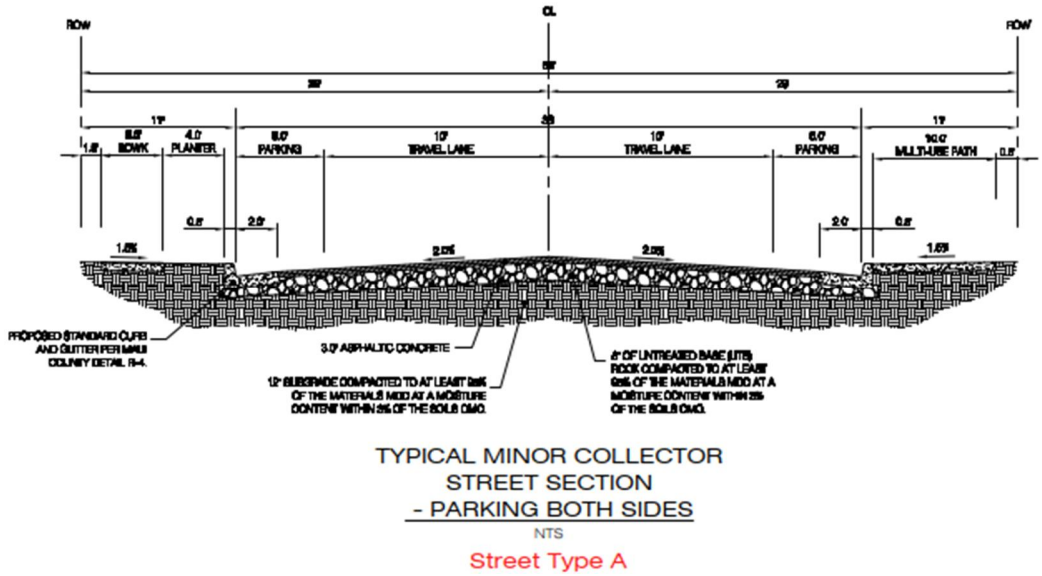
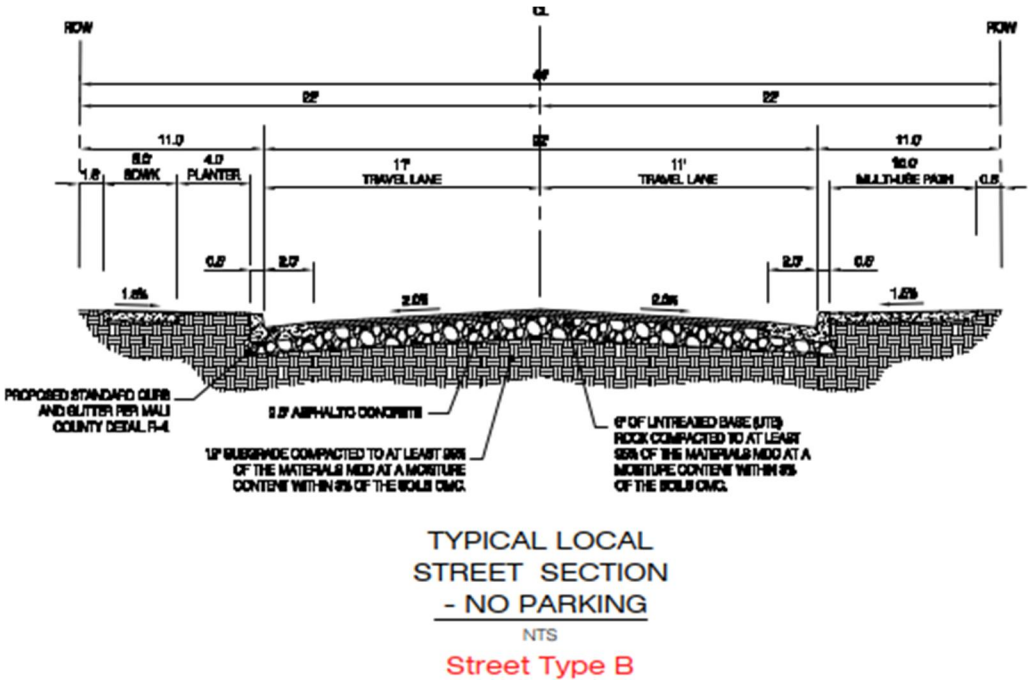


Figure 10: Street Type A Typical Section

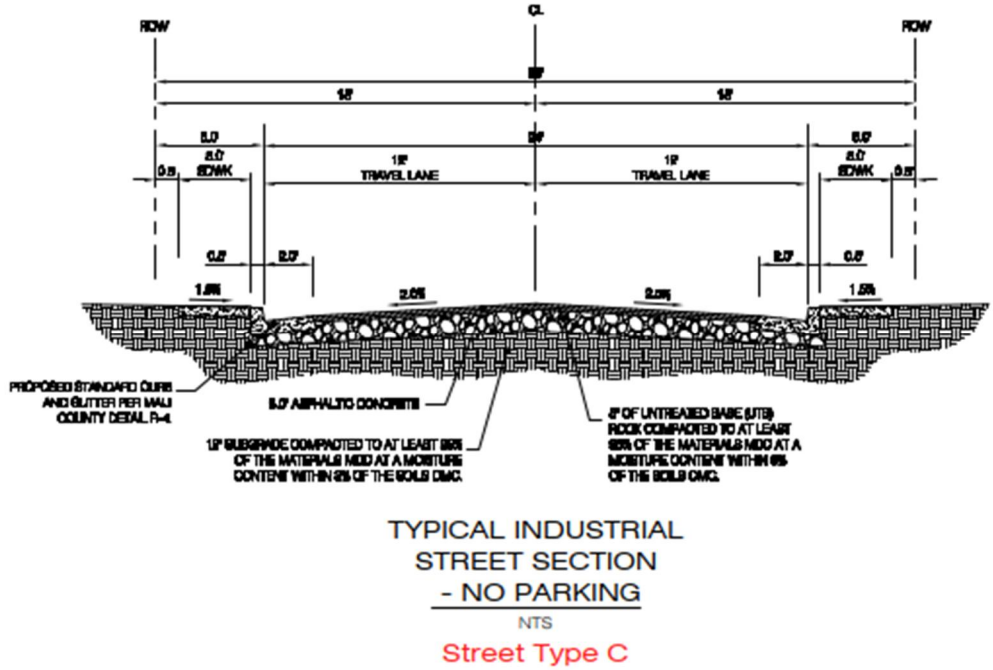
Street type B will be very similar to street type A with some minor changes and a total right-of-way width of 44 feet. The travel lanes for street type B will be 11 feet wide compared to street type A's 10 feet wide travel lanes. Additionally, street type B will not include parking on either side of the roadway. Therefore, street type B will consist of 11-foot-wide travel lanes that overlap with the 2-foot-wide gutter and a 6-inch curb in both directions. Outside of the curb, there is a 4-foot-wide planter and 5-foot-wide sidewalk and 1.5-foot-wide buffer zone in one direction and a 10-foot-wide multi-use path and 6-inch buffer zone in the other. Figure 11 below shows the typical section for street type B.



Street Type B

Figure 11: Street Type B Typical Section

Street type C will be for industrial use streets, which will have a right-of-way width of 36 feet. The typical section will include a 12-foot-wide travel lane, which overlaps with the 2-foot-wide gutter, a 6-inch curb, a 5-foot-wide sidewalk and 6-inch-wide buffer zone in both directions. Designated street parking on either side of the roadway is not included for the industrial use streets as there will be ample parking within the proposed parking lots. See Figure 12 below for the typical section of street type C.



Street Type C

Figure 12: Street Type C Typical Section

Street types A and B will make up majority of the interior roadways at Ho‘onani Village. The main roadways connected to the driveways from Pūlehu Road and Hansen Road will be street type A as this typical section is wider and provides additional street parking for the various buildings. Street type B will be used on the less frequented roads throughout the development and street type C will be used for the light industrial areas. The main interior roadways will be connected by roundabouts compared to standard four way stops to help alleviate traffic and improve the functionality of the intersection. The proposed street type layout is shown in Figure 13 below.

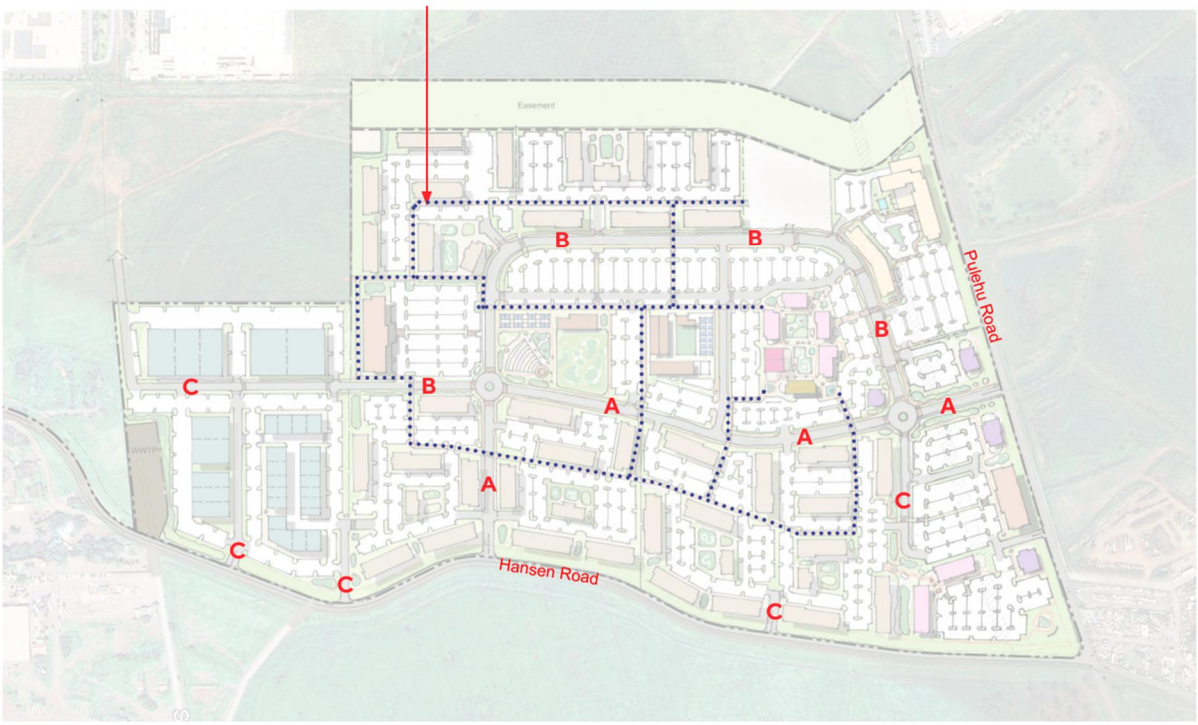


Figure 13: Street Type Layout

In addition to the on-street parking that will be provided along the street type A roadways, there will be multiple parking lots located throughout Ho‘onani Village to provide ample parking for the various residences and businesses.

Proposed Bicycle and Pedestrian Facilities

Marked crosswalks will be implemented to connect the walkways along all the internal roadways. The conceptual master plan also includes off-street shared pedestrian and bicycle pathways throughout the site. As previously stated, all walkways will be constructed to meet ADA requirements to ensure equal access for all individuals. Bicycle facilities will be provided on site through the on-street multi-use paths and the off-street pathway system. The project site plan emphasizes multi-modal transportation and encourages the residents to walk or bicycle to the other amenities on site.

Proposed Public Transit Facilities

Currently, the development of Hoʻonani Village does not include additional public transit stops within or surrounding the project site. However, the applicant is currently working with the County of Maui and there is potential to accommodate public transit expansion by adding bus stops adjacent to or within the project site in the future. Adding additional stops would help encourage Hoʻonani Village residents and patrons to use the public transportation options, which would reduce the need for private vehicles thus alleviating roadway congestion.

7.4 Proposed Electrical and Communication Facilities

There are several overhead power sources within and directly adjacent to the project site that could potentially service the proposed Hoʻonani Village. Proposed electrical and communications systems will be designed by a licensed electrical engineer and coordinated with the County of Maui and HECO. Although existing sources are overhead, the proposed electrical and communication service lines will be underground in a shared utility trench for the conduits. Existing utility & power poles will be relocated as needed to install the road improvements along Hansen and Pūlehu Roads, and for the on-site improvements.

8.0 PROPOSED DRAINAGE SYSTEM

With the construction of the streets, buildings, parking areas and sidewalks, the total impervious surface area increases, thus also increasing the stormwater runoff generated by the proposed project. The additional runoff quantities will be analyzed per the County of Maui's Rules for the Design of Storm Drainage Facilities, Title MC-15, Chapter 4. These improvements will also bring elements to the site that increase the chance of pollutants entering the existing nearby drainage conveyance systems including streams and the ocean. The runoff from the site will be managed for water quality treatment to meet the County of Maui Department of Public Works Rules for the Design of Storm Water Treatment Best Management Practices, title MC-15, Chapter 111. The complete analysis of the proposed drainage system and the upstream basins can be found in Appendices 'C' and 'D'.

The proposed site has been divided into 27 drainage basins in the developed condition, notated as R1-8, P1-9, W1 and B2. Upstream Basins O1 and O2 continue to flow towards the site and will be managed in the proposed system. The Developed Basin Map is shown below in Figure 14 and attached in Appendix 'C' details the boundaries of these proposed drainage basins.

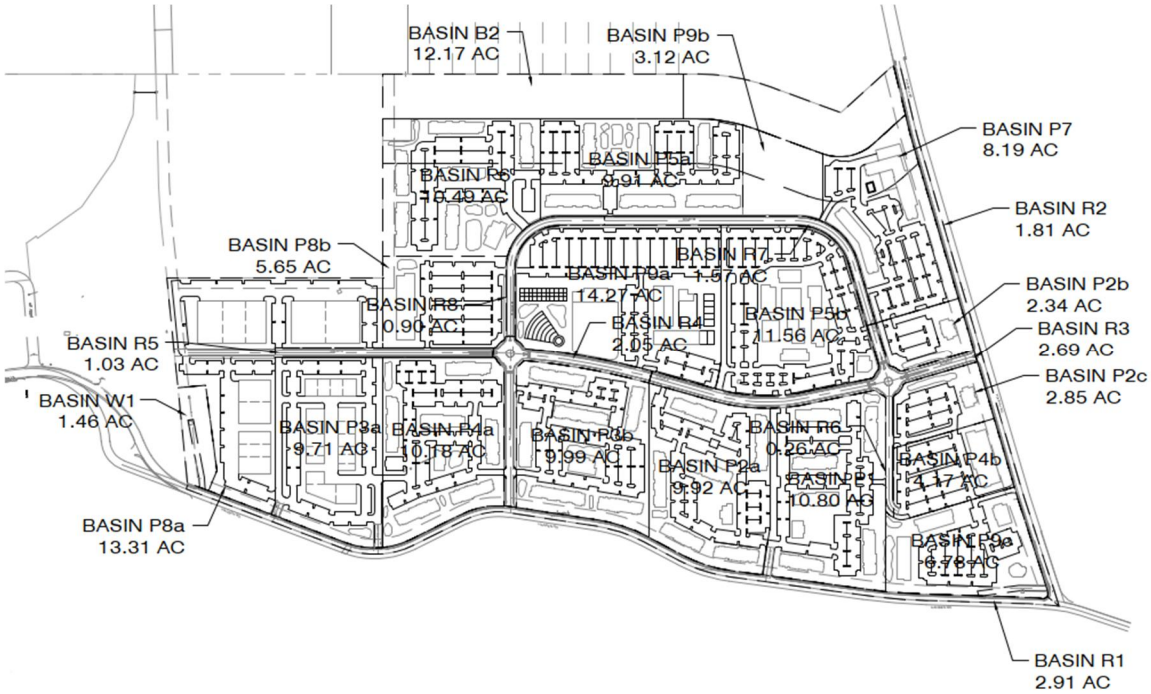


Figure 14: Developed Basin Map

The site is made up of soil group B rated soils and will have future cover types for impervious areas and open space lawn areas. These cover types have associated runoff curve numbers of 98 for impervious areas and 61 for open space lawn areas. The future site plan is made up of several different uses including residential low-rise apartments areas, light industrial & business office areas, street right-of-way areas, neighborhood commercial areas, hospitality areas and open space areas. Within these various spaces, the total impervious areas were estimated by percentages to help calculate the composite runoff curve number for the site. The residential areas were estimated to have 65% impervious surfaces, the light industrial & business areas to have 85% and the commercial areas to have 75%. The roadway impervious areas were estimated based on the proposed typical section of each roadway type, see Figures 10, 11 and 12 in Section 7.2 for the typical sections. The last piece of the runoff analysis for each of the developed basins was the time of concentration. For each basin a catchment time of five minutes plus the longest potential run of drain line with a velocity of 3 ft/sec. of flow in the pipe were used. As a factor of safety for the preliminary design, the length of pipe was estimated using the respective drainage areas, which overestimates the developed flow rates and volumes.

The developed basin sizes, composite runoff curve numbers and time of concentrations were inputted into HydroCAD to model the developed hydrographs for the 100-year, 24-hour storm events for each basin. The NOAA rainfall data for the area was utilized to estimate the rainfall depth for the site during the designated storm event. The attached Proposed Drainage Condition Analysis in Appendix 'C' breaks down the developed flow rate (cfs) and flow volume (ac-ft) for the separate 27 on-site basins and 2 off-site basins. **Table 8-1** below breaks down the developed drainage basins and their associated flows and volumes.

Table 8-1: Developed Basin Analysis					
Basin #	**Basin Area (AC)**	**Composite Runoff Curve**	**Approx. Dev. T.O.C. (min.)**	**Developed Flow Rate (cfs.)**	**Developed Volume (Ac-ft.)**
R1	2.912	96.15	25.11	12.56	2.108
R2	1.813	96.15	20.14	8.50	1.313
R3	2.687	94.30	18.19	13.03	1.891
R4	2.053	94.30	15.83	10.55	1.445
R5	1.031	92.45	17.22	5.04	0.705
R6	0.257	96.15	15.44	1.35	0.186
R7	1.573	92.45	12.06	18.74	1.075
R8	0.895	92.45	11.39	5.24	0.666
P1	10.798	85.05	18.06	47.62	6.611
P2a	9.919	85.05	25.11	37.34	6.073
P2b	2.342	88.75	11.50	12.83	1.530
P2c	2.854	88.75	12.72	15.18	1.864
P3a	9.706	92.45	22.64	41.89	6.635
P3b	9.986	85.05	15.78	46.58	6.114
P4a	10.178	85.05	18.08	44.88	6.231
P4b	4.166	92.45	14.53	21.82	2.848
P5a	9.911	85.05	9.19	54.93	6.068
P5b	11.559	88.75	9.42	67.00	7.549
P6	10.486	85.05	11.39	54.76	6.420
P7	8.191	88.75	6.00	51.40	5.350
P8a	13.314	92.45	23.36	56.51	9.101
P8b	5.648	92.45	13.19	30.56	3.861
P9a	14.271	88.75	12.25	76.84	9.320

Table 8-1: Developed Basin Analysis					
Basin #	**Basin Area (AC)**	**Composite Runoff Curve**	**Approx. Dev. T.O.C. (min.)**	**Developed Flow Rate (cfs.)**	**Developed Volume (Ac-ft.)**
P9b	3.124	88.75	7.28	18.99	2.040
P9c	6.779	88.75	16.72	32.54	4.427
W1	1.462	79.50	6.14	8.05	0.820
B2	12.17	61.00	5.00	42.53	4.422
TOTAL	**170.090**	**-**	**-**	**826.96**	**106.67**

The on-site basins have a total flow rate of 826.96 cfs and a total flow volume of 106.67 acre-feet (see the attached developed conditions HydroCAD report in Appendix 'C' for additional information). The site had a pre-developed flow rate of 131.48 cfs and a flow volume of 64.83 acre-feet. Under the proposed development, the flow rate will increase by approximately 695.48 cfs and the flow volume will increase by approximately 41.84 acre-feet. With the development the flow rate and flow volume from the upstream basins O1 and O2 did not change. The increase in flow will be detained on site, meeting the County of Maui's Rules for the Design of Storm Drainage Facilities, Title MC-15, Chapter 4.

The proposed storm drainage system on site will incorporate a mixture of open conveyance and closed conveyance measures to direct the runoff to its discharge location where it will be detained and infiltrated. The storm drainage design for the site is subject to change throughout the design process. This report represents the currently proposed alternative as well as a few additional possible alternatives that could be utilized as the project design moves forward.

8.1 Stormwater Quantity Control

The increased runoff from the new improvements of Ho'onani Village will be managed by redesigning detention basins B-2A and B-2B. Figure 15 below shows detention basins B-2A and B-2B as they are currently proposed under the Maui Business Park Phase II plans. Ho'onani Village will utilize curb inlets, area drains, manholes and an underground storm drain line system to convey runoff from the on-site and upstream basins to the proposed detention basin. The proposed drainage system will have enough vertical fall to ensure positive drainage to the final detention basin.

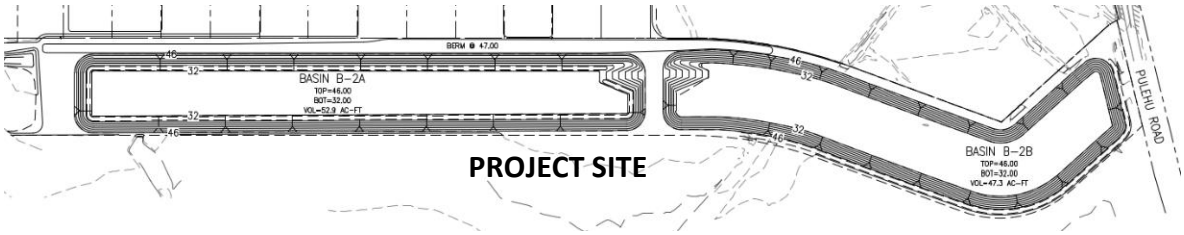


Figure 15: Designed Detention Basins B-2A and B-2B

In the developed condition, detention basins B-2A and B-2B collect stormwater from all developed and upstream drainage areas. To accommodate this additional flow and volume, these basins will be combined into one larger basin, labeled as detention basin B-2, eliminating the field road connection previously intended so that the basin's overall volume capacity will increase. Additionally, the drainage basin will need to be widened and deepened with the bottom of the basin going from the 32-foot elevation to the 20-foot elevation. The top of the basin will remain at the 46-foot elevation, which would give the basin a total depth of 26 feet. With the additional 12 feet in depth as well as combining the detention basins into one, there will be significantly more storage volume. Pre-developed calculations estimated detention basin B-2A and B-2B had a combined volume of 100.16 acre-feet, while detention basin B-2 has an estimated storage volume of 168.99 acre-feet. Development of the proposed project would direct a total of approximately 156.29 acre-feet of stormwater flow to detention basin B-2. Due to having a depth of over 25 feet and a capacity of over 50 acre-feet, the basin will need to meet the requirement of Hawaiʻi's formal Dam and Reservoir Safety Program (administered by the DLNR under Hawaiʻi Revised Statutes (HRS) Chapter 179D and HAR Chapter 13-190.1 – Dams and Reservoirs).

The original design of detention basins B-2A and B-2B included an overflow structure at the northwest corner of detention basin B-2A. The structure consists of a 4-foot by 4-foot concrete structure with a grated inlet at the 44-foot elevation. The overflow structure connects to the existing drainage system via a 42-inch drain line with an invert of 35.00 feet at the overflow structure and approximately 33.20 feet at the existing drainage system connection. To aid in discharging some of the stormwater runoff before reaching the top of the overflow structure, it is proposed to provide a 4-inch orifice on the east face of the structure at the 40-foot elevation. Using the overflow structure as the only means of discharge and ignoring all infiltration, the peak elevation is at 44.20 feet, which allows for an additional 1.80 feet or 12.70 acre-feet of storage. Based on the calculations, the proposed detention basin B-2 is adequately designed to manage the developed runoff for these drainage areas. The developed runoff hydrograph for the 100-year, 24-hour storm conditions described above can be seen in the HydroCAD report in Appendix 'C'. **Table 8-2** below outlines Basin B-2 design parameters.

In addition to the overflow structure and the existing storm drainage system, an emergency overflow spillway at the east end of the detention basin, along Pūlehu Road, will be constructed should the 100-year, 24-hour storm be exceeded. With the calculated peak flow elevation at 44.20 feet, the bottom of the emergency overflow spillway should be at

approximately 44.50 feet, which would allow for 1.50 feet of flow depth within the spillway. Any stormwater runoff that is discharged through the emergency spillway will flow towards Pūlehu Road.

Table 8-2: Detention Basin B-2	
Detention Basin Bottom Elev. (ft.)	20.00 ft.
100-year, 24- hr. storm Elev. (ft.)	44.20 ft.
Top of Pond Elev. (ft.)	46.00 ft.
Amount of Freeboard (ft.)	1.80 ft.
Total Available Volume (Ac.-ft.)	168.99 ac.-ft.
Total Flow Volume (Ac.-ft.)	156.29 ac.-ft.
Total Storage Volume (Ac.-ft.)	12.70 ac.-ft.

Along with the detention basin, the proposed catch basins, area drains and drain lines will be designed to convey the 100-year, 24-hour storm event to meet the Rules for the Design of Storm Drainage Facilities in the County of Maui. Preliminary storm system structures and pipes are outlined in Figure 16 below and attached in Appendix 'C'. The conveyance system will be designed so that the flooded widths of the streets will be less than the required 8 feet, and so that the Hydraulic Grade Lines (HGL) within the system are further than 1 foot from the rim elevations of the proposed structures or the finished ground elevation. The final drainage report for the project will address the catch basin & inlet capacity calculations, the flooded road widths, and the HGL calculations. The HGL calculations will also be shown on the drain line profiles on the final construction plans.

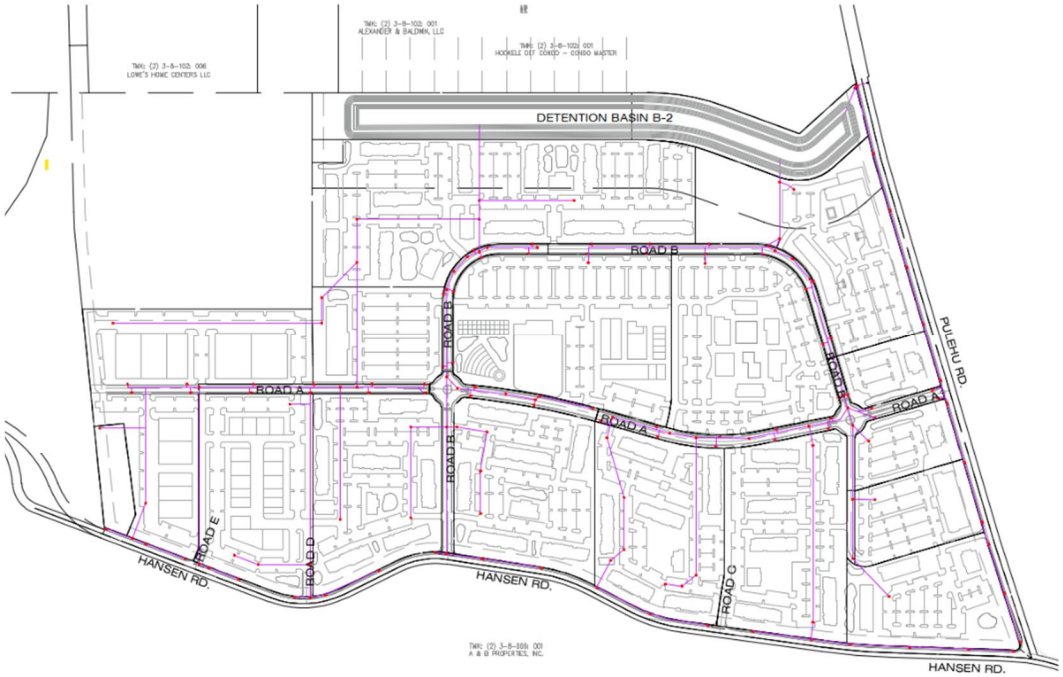


Figure 16: Preliminary Storm Drainage System

The on-site drainage system will be privately owned and maintained by the applicant until the system is turned over to the Association that is created to manage the development. The final operations and maintenance (O&M) plan will be added to the final storm drainage report.

The applicant received a comment from the Hawai'i Department of Transportation through the Change of Zoning, General Plan amendment, and District Boundary Amendment (ZPA2025-00011) process, through a letter to Mr. Jeffrey T. Ueoka, the Project Attorney, dated February 2, 2026, that stated:

Comment number 6 – While the response letter states no "water features," the Environmental Impact Statement Preparation Notice indicates an area of approximately 14.23 acres dedicated to detention ponds. Standing water has the potential to become a wildlife hazard. The HDOT recommends that the developer incorporate measures to minimize hazardous wildlife attractants in compliance with the FAA Advisory Circular 150/5200-33C Hazardous Wildlife Attractants On or Near Airports. If the project results in a wildlife attractant, these hazards shall be mitigated immediately upon notification by the HDOT and/or the FAA.

The proposed detention ponds are designed to function as large infiltration basins without any permanent pools, wetlands or water features. These basins will allow stormwater to percolate through the topsoil and will not hold runoff longer than the design storm drawdown period. The side slopes of the basin will be designed to discourage wildlife loafing and nesting, and the vegetation will consist of local grasses that do not provide a habitat for hazardous wildlife. The HOA will follow the final O&M plan for maintaining the detention basins to address any issues with wildlife activity that may pose an aviation hazard. With these measures, the project's stormwater detention basins will function solely as temporary drainage facilities and will not constitute as a hazardous wildlife attractant as defined within the FAA Advisory Circular 150/5200-33C.

8.2 Stormwater Quality Treatment

The proposed detention basin B-2 is designed to function as an infiltration basin and has been designed to meet the Rules for the Design of Storm Water Treatment Best Management Practices, Chapter 15-111. The detention basin has been designed to hold the runoff volume associated with the 100-year, 24-hour storm event. Therefore, rainfall from smaller rain events will collect and infiltrate into the bottom of the basin as there are no pond outlets outside of the emergency overflow structure and spillway. This allows solids to filter out so they are not conveyed into any downstream storm systems or streams. The detention basin has sufficient infiltration rates to allow the stormwater to be filtered through the vegetation and soil. To ensure proper infiltration is consistent and the basin will continue to function properly, the basin will need to be maintained monthly and following large rain events to remove any debris. Additionally, it is possible that water quality

manholes will be implemented with the development to pretreat the runoff prior to being discharged to Basin B-2.

After analysis, it is Pioneer Design Group - Hawai'i's opinion that the basin will function well as a water quality treatment BMP and will more than sufficiently treat the runoff from the site and upstream basins. The proposed project will not adversely affect the downstream drainage areas or properties with any contaminants or debris.

8.3 Drainage Alternatives

The design of the storm drainage system is one element of the Ho'onani Village that could change greatly as the project moves forward. With the ever-changing costs of construction materials and the nature of storm drainage design having more room for flexibility and creativity than other systems like water or wastewater, the current proposed design could change while still meeting the requirements of the County of Maui. Below is a list of potential alternatives that could be utilized to address water quantity detention and water quality control for the project site and upstream basins in place of or in addition to the detention basin B-2. The final storm drainage system might include other alternatives that are not listed, but these are the main alternatives that are being considered at this time.

1) Street-side swales, planters or rain gardens: Open conveyance options along the street frontages to manage runoff from the public and private streets could be incorporated into the design where practical. Additionally, as the final parking lot plans and designs are completed, vegetated swales may be utilized to manage runoff from the pavement areas within the various phases. These swales utilize landscaping and pervious areas to create both an aesthetic element for the design and a functional way to treat stormwater. These types of low impact development approaches (LIDA) may be considered in the final design of the storm drainage system. The benefit of these street side green infrastructure measures is that they treat and manage the storm runoff at the source prior to entering the storm drainage system or infiltrate the water directly into the soil. This leads to less debris entering the main storm system and keeps the pipes flowing well. The downside of these approaches is that they are typically much more expensive as they create many smaller basins to address the runoff. They also create many different areas for maintenance instead of the maintenance being isolated to one location. These street side LIDA would also be within the County of Maui's ROW should the streets be dedicated to the County at a later time, which would create additional maintenance for the County. The creation of a larger shared detention pond is more cost effective, which helps these 100% affordable housing projects pencil out.

2) Sub-surface detention: The increased stormwater runoff within each drainage area could also be managed using underground, sub-surface detention systems such as chambers or large perforated pipes. These type of BMPs allow the applicant to save space in the site plan by managing the volume under open space areas and parking

lots. Percolation tests completed on site indicate sufficient infiltration, thus making these sub-surface BMPs ideal for both water quantity control and water quality treatment. The benefit of these sub-surface approaches is that the applicant is able to utilize space on site for parking or active open space and also address stormwater detention and treatment underground. These underground measures are less cost effective compared to the creation of a typical detention pond as they will require a lot of additional infrastructure costs for the stormwater chambers or large perforated pipes. Additionally, as the site will have detention basins already built in the existing easements, it is more practical to increase the volume in the basins to address the increase in stormwater runoff.

3) Bio-retention basins, planters or landscaping: Since the landscaping vision and design for the project are not finalized, there is potential to direct runoff from roof drains of the proposed buildings to bio-retention areas for treatment, detention, or infiltration. For larger storm events, these BMPs can be paired with underground detention measures or a detention basin to manage the stormwater runoff. These LIDA BMPs will be considered with the final design. The benefit of these green infrastructure measures is that they treat and manage the storm runoff at the source prior to entering the storm drainage system or infiltrate the water directly into the soil. This leads to less debris entering the main storm system and keeps the pipes flowing well. Additionally, these LIDA can be a functional part of the on-site landscaping plan for both functionality and aesthetics. The downside of these approaches is that they are typically much more expensive as they create many smaller basins to address the runoff. They also create many different areas for maintenance instead of the maintenance being isolated to one location. The creation of a larger shared detention pond is more cost effective, which helps these 100% affordable housing projects pencil out.

4) Infiltration structures: Smaller drainage areas could be treated separately into other types of infiltration structures such as dry wells, or open bottom catch basins, etc. These individual types of systems are less efficient but can be effective to manage smaller basins that may require a long run of storm lines to the drainage basin. These will be considered where practical in the final design. These smaller infiltration options provide the applicant with more flexibility to address smaller, isolated basins, but these measures require additional infrastructure and will require additional maintenance.

5) Off-site Detention basin: The proposed storm design shows that the entire developed drainage area can be managed on site in a redesigned detention basin B-2. Adjacent to the site to the west is an existing drainage basin, B-1, which is located on the neighboring property. This large basin is located downstream of the Ho'onani Village project site and can be utilized to manage runoff from the site. However, additional easement agreements would be required to utilize this basin. This remains a potential alternative for stormwater management and may be explored

with final drainage design. The benefit for the utilization of this existing basin is that the applicant would improve the basin to function better than its current condition and would add additional redundancy to the storm drainage system. Additionally, the stormwater infrastructure that would be required to convey water to this basin would provide for future connection opportunities for the adjacent properties. This option is not currently considered but could be utilized in the future.

6) Temporary Stormwater Management Measures: The phased development begins along Hansen Road for the first phases of residential development. This portion of the site would include a long run of storm drainage pipes to reach Basin B-2. Should construction costs change and this long run of piping not be feasible for the first phases of development, temporary stormwater management measures may be implemented to reduce the overall construction costs of the early phases. As the early phases are built, future phase areas could serve as temporary stormwater management areas that can be utilized to detain and treat the stormwater. This would allow the applicant to extend the stormwater piping system as the phases are developed if needed. The temporary BMPs would be designed to meet the requirements of the County of Maui. This option provides the applicant with the ability to reduce the initial costs for storm drainage infrastructure but will require a higher level of integrated design between phases to ensure that the drainage is managed properly. This method will require an overall cost increase to the stormwater system but will have short-term benefits for cost reduction.

8.4 Low Impact Development Approaches

The Ho'onani Village mixed-use development will incorporate Low Impact Development approaches to manage stormwater where practical in accordance with the County of Maui stormwater requirements. The potential implementation of these approaches will help the project mimic pre-development hydrology by minimizing impervious surface impacts, promoting on-site retention, and reducing runoff volume through distributed source-control measures. For the street system, the applicant is emphasizing reduced street sections to minimize impervious surfaces while keeping the streets safe. The streets include shared bicycle and walking paths to reduce impervious surfaces. Throughout the project site, parking areas and roof drains will direct runoff to pervious open space areas to the maximum extent practical to provide pretreatment for runoff on site. Additionally, the applicant has chosen to design buildings with a smaller overall footprint to maximize open space areas on site. The final design of each phase and the proposed structures will be finalized with final construction plans and building permits for that phase.

Other LID measures that were discussed above in section 8.3 will be further considered with final design. These LID practices will include bioretention areas, landscaped infiltration basins, permeable pavement where appropriate, vegetated swales, and amended soils to enhance infiltration and pollutant removal. These measures may be integrated into the site layout to capture and treat stormwater as close to its source as practicable, thereby

reducing peak discharge rates, improving water quality, and promoting groundwater recharge. These LID measures would work in sequence with the proposed detention basin on site to manage all of the stormwater.

9.0 PROPOSED WATER SYSTEM

The development plans on designing and constructing a potable water system, modifying an existing water source with a new water pumping system, and installing a new storage and distribution system. The intent of the modifications to the existing water source is to construct a future municipal water supply that will be owned and operated by the County of Maui and serve various users within the local community, including the residents and visitors to Hoʻonani Village. If an agreement with the County of Maui is not finalized, then the system will be planned as a private water system. The new water system would serve the site for domestic, irrigation, and fire suppression uses. The applicant is currently analyzing an existing well referred to as Puʻunēnē – Pump 6, State Well No. 6-5226-002. Figure 17 below and the attached Off-Site Water Distribution System map in Appendix 'D' shows the approximate location of the Puʻunēnē – Pump 6. Water samples from the existing well were tested and according to the Water Resource Assessment by TNWRE, dated March 2026, the well water will be slightly brackish and therefore, would require reverse osmosis filtration to reduce its salinity. The existing well pumps would need to be downsized to accommodate Hoʻonani Village. The long-term ownership and maintenance of the water system will be finalized at a later time. The RO system and modifications to Pump 6 are discussed in detail below in section 9.3.

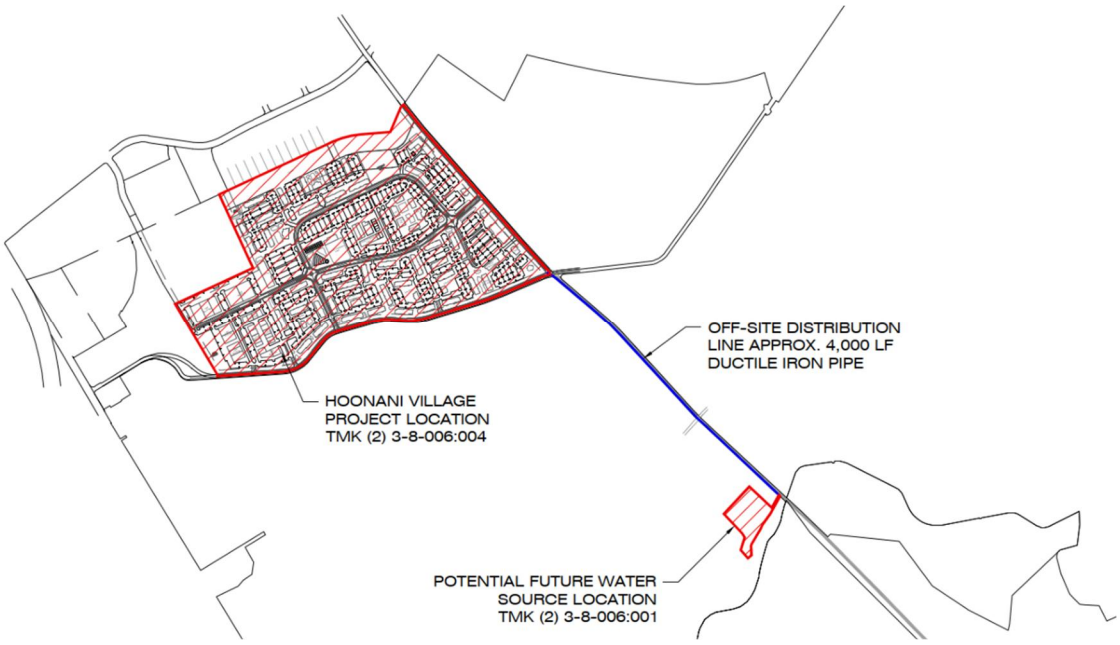


Figure 17: Off-Site Water Distribution System Map

The water system on site will be constructed with various sizes of ductile iron pipe (or another material meeting the standards of the DWS), and will be located within the streets,

parking lots, and open spaces to serve the various uses on site. A preliminary water system layout can be viewed below in Figure 18, as well as attached in Appendix 'D'. This conceptual water system layout only identifies the potential backbone system that will serve the various phases of construction. Additional water lines and structures will be installed within the phases themselves to serve the improvements in that phase.

Separate water services, meters, pressure reducers and backflow preventers etc. will be installed throughout the site to serve the residential, commercial and industrial buildings, and open space areas. Fire hydrants will be spaced out every 250 feet as required by the DWS for fire suppression. Additionally, the buildings will have fire department connections (FDC) and other fire suppression measures that will be addressed in the future with the finalization of the building plans for the various buildings on site. The applicant will continue to coordinate with the County of Maui's Fire Department to ensure that the proposed fire suppression system on site meets all their requirements.

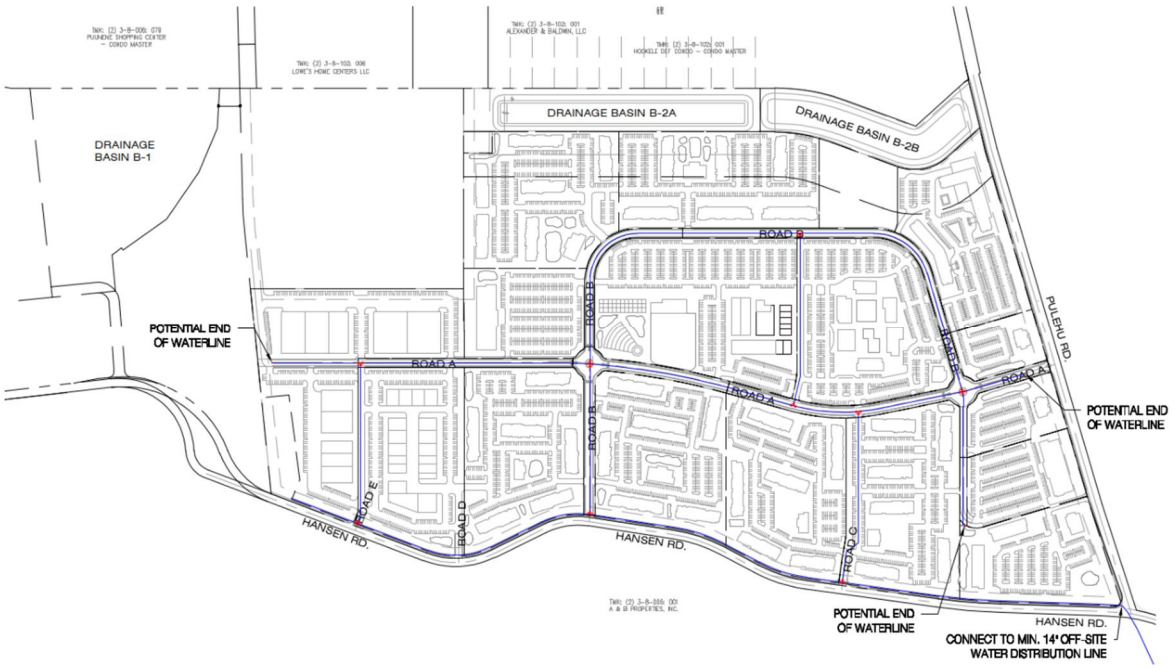


Figure 18: Preliminary Water System Layout

Water for irrigation has several potential sources including the new water system, or the proposed wastewater treatment plant that would produce reusable R-1 water. Since there is potential for irrigation water to be supplied through the private potable water system, irrigation consumption calculations have been added to the water system calculations below to assess the associated impacts. Irrigation meters and backflow preventers will be installed as necessary to irrigate the open space and landscape amenities on site.

The complete analysis of the proposed water system and the layout for the preliminary water master plan can be found in Appendix 'D'.

9.1 Water System Preliminary Calculations

The project site is mixed-use in nature including multi-family low rise residential, mixed commercial and recreational spaces, office buildings, light industrial, hospitality and landscaping. The County of Maui Department of Water Supply’s requirements for water system sizing were used to size the proposed system. The Domestic Consumption Guidelines and the Fire Flow Requirements were utilized in the attached calculations in Appendix ‘D’ and in the water system demand table below.

For the residential portions of the site, the current proposed site plan reflects 1,608 units that vary between 1-, 2- and 3-bedroom units. The total number of units and the mix of unit types is subject to change through the design process. The proposed units are all low-rise multi-family buildings. The private water system will be designed with these units having a domestic consumption of 400 gal./unit. The typical sizing requirement per DWS Standards is 560 gal./unit for Maui, which is drastically different from the rest of the islands. The islands of O‘ahu and Hawai‘i use 400 gal/unit and the island of Kaua‘i uses 350 gal./unit. The multi-family low rise units in this 100% affordable housing project should not utilize an additional 160 gal./unit on average. For practicallity purposes, the goal of sizing the system is to calculate the predicted water demand and understand what will be needed to be pumped from the aquifer. The additional 160 gal./unit would equate to an additional 258,000 gallons of water per day that will not be needed by the development. For this reason, the applicant is requesting to utilize 400 gal./unit for sizing the water system. The approximate residential average daily demand for 1,608 units is 643,200 gallons per day (gpd).

The commercial and industrial spaces, which will include retail, restaurant, entertainment, hospitality, offices and light industrial buildings, were broken down into estimated acreage occupied. These spaces were modeled using the required 6,000 gallons per acre. The total average daily demand for the commercial and industrial areas is 289,627 gpd. The open space areas on site were modeled at 1,700 gallons per acre and had a total average daily demand of 64,600 gpd. The wastewater treatment plant water usage was assumed to be negligible. The proposed project will be built out in several phases. Some phases include both residential and commercial uses, while others only include one. The potable water usage for each phase is broken down in the Domestic Private Water System Calculations in Appendix ‘D’.

Table 9-1 below summarizes the breakdown of the phases and various uses on site. The current plan for Ho‘onani Village has an approximate average daily demand (ADD) of 997,427 gpd. This was increased by 10% to account for unmetered losses in the system to a total design ADD of 1,097,170 gpd. Utilizing a factor of 1.5, the Max Daily Demand was calculated to be 1,645,755 gpd.

Table 9-1: Water System Demand Calculations				
Phase	**Type of Use**	**Quantity of unit**	**Average Daily Demand (gpd)**	**Max Daily Demand (gpd) (1.5 x ADD)**
1	Residential Irrigation	268 units 3.77 acres	113,609	170,414
2	Residential Commercial Irrigation	268 units 0.230 acres 4.77 acres	116,686	175,030
3	Residential Commercial Irrigation	268 units 1.722 acres 4.96 acres	125,963	188,944
4	Residential Commercial Irrigation	268 units 1.033 acres 4.60 acres	121,218	181,828
5	Residential Commercial Irrigation	268 units 0.803 acres 6.63 acres	123,292	184,938
6	Residential Irrigation	268 units 3.56 acres	113,252	169,878
7	Commercial Irrigation	240 units 2.05 acres	87,485	131,228
8	Commercial Irrigation	235,000 sq. ft. 1.41 acres	35,297	52,946
9	Commercial Irrigation	25 acres 6.25 acres	160,625	240,938
Project Total	**-**	**-**	**997,427**	**1,496,141**
Project Total (Increased by 10% for unmetered losses)	**-**	**-**	**1,097,170**	**1,645,755**

With the Maui County Council's adoption of Ordinance 5759, the Department of Water Supply now bases an individual property's domestic water demand and development impact fees on projected daily water use rather than counting individual water fixtures. The new method measures water demand with a standard daily unit called an Equivalent Single Dwelling (ESD), which is equal to 300 gallons of water per day. One ESD represents estimated daily water use for a typical home based on the number of bedrooms and bathrooms. As this method has recently been adopted, the applicant is working with the County of Maui's Department of Water Supply on whether this method can be utilized to size the water system to serve the proposed project as this method provides a more accurate and realistic representation of water use for the residential units. The preliminary

unit breakdown of phase 1 includes 90 – 1-bedroom and 1-bathroom units (0.5 ESD), 144 - 2-bedroom and 1-bathroom units (0.6 ESD), and 36 – 3-bedroom and 2-bathroom units (0.9 ESD). With this as the estimated residential phase breakdown, the average daily demand per unit is 182 GPD. This newly adopted methodology shows that the domestic consumption guidelines from the Water System Standards provide an overestimation of the project's projected water use and impact on the aquifer. If this method was utilized for only the residential uses in the proposed project, the project's total average daily demand would be reduced to 649,067 GPD. This methodology will continue to be discussed with the DWS, and a final system sizing methodology will be determined prior to final design of the system. See Appendix 'D' for the full breakdown of the project by phases utilizing this methodology.

9.2 Water Main System & Water Storage Sizing

With the total approximate average daily demand and max daily demand understood, the water mains on- and off-site were sized based on fire flows and domestic flows. The main distribution line from the off-site water source will carry the domestic flows for the entire site. The peak hour flow rate of 2,286 gallons per minute was used to analyze this line. For domestic uses, during peak flow, the maximum velocity in the water mains must be less than 5 ft./sec. This criterion requires this main distribution line to be a minimum of 14 inches in size. Within the project site, the separate branches of the water system will only supply water to the uses around it, which indicates that the fire flow rate will control the sizing of these mains. Commercial uses in the County of Maui must be able to supply a fire flow rate of 2,000 gpm for two hours. Based on this flow rate, the water mains on site will likely be a minimum of 12 inches in size. The final design of the water system on site will be completed in phases with construction plan design.

The proposed water reservoir that serves the development will be sized based on the larger requirement between the maximum day consumption, and the combined maximum day consumption flow plus fire flow for the duration of the fire (2 hr.). During the two-hour period of a potential fire, a ¾ full reservoir would have to hold 377,146 gallons, which would make the reservoir have a size of at least 502,862 gallons. However, this is significantly less than the maximum day consumption of 1,645,755 gallons, which would control the volume needed to serve the project. The applicant is working on potential agreements with the County of Maui and Mahi Pono to pump, store and distribute additional potable water as a future municipal water source. The final volume of storage will be confirmed during the final design phase of the system.

9.3 Water Source and Water Tank Site

A Water Resource Assessment was completed by TNWRE to analyze the potential use of the existing Pu'unēnē – Pump No. 6 to serve the project. The existing well is currently not in use. The applicant plans on downsizing the existing pumps and installing two 700 GPM pumps to provide the required water supply in a 20-hour pumping day. A Pump Installation Permit will likely be required based on a recent policy change by the CWRM. Redundancy is

built into Pump 6 by the potential utilization of both of the existing tunnels and the new pumps that will be installed will both be sized to supply the required amount of water on its own. The final design of the modifications to Pump 6 will be completed prior to construction.

It is anticipated that the water that will be pumped from Puʻunēnē – Pump No. 6 will likely be brackish and need to be treated to serve domestic uses. A treatment system will be designed and installed to provide a long-term water source for the development. A reverse osmosis (RO) treatment system will likely be utilized to treat the water. The RO process produces a byproduct often referred to as the brine that is made up of concentrated dissolved salts, hardness minerals, silica and other trace metals and treatment chemicals. The depending on the quality of the groundwater when the pumps are functioning at full capacity, the brine will typically make up for about 15-30% of the total amount of groundwater that is pumped and treated. The site of Pump No. 6 is adjacent to an existing irrigation ditch called the Haiku Ditch that is actively in use by Mahi Pono. The ditch adjacent to the well site flows to the south for over 3 miles to a large basin for irrigation use. The applicant's preferred discharge method for the brine is to convey it to the Haiku ditch to be diluted with the ditch water and to be reutilized by Mahi Pono for irrigation. Continued testing of the ditch water in the basin would be completed to confirm that the salinity of the water isn't too high for irrigation use following the addition of the brine. The applicant is in contact with Mahi Pono to pursue an agreement for the potential discharge of the RO byproduct. See Figure 19 below for an aerial map of Pump 6 and the adjacent ditch.

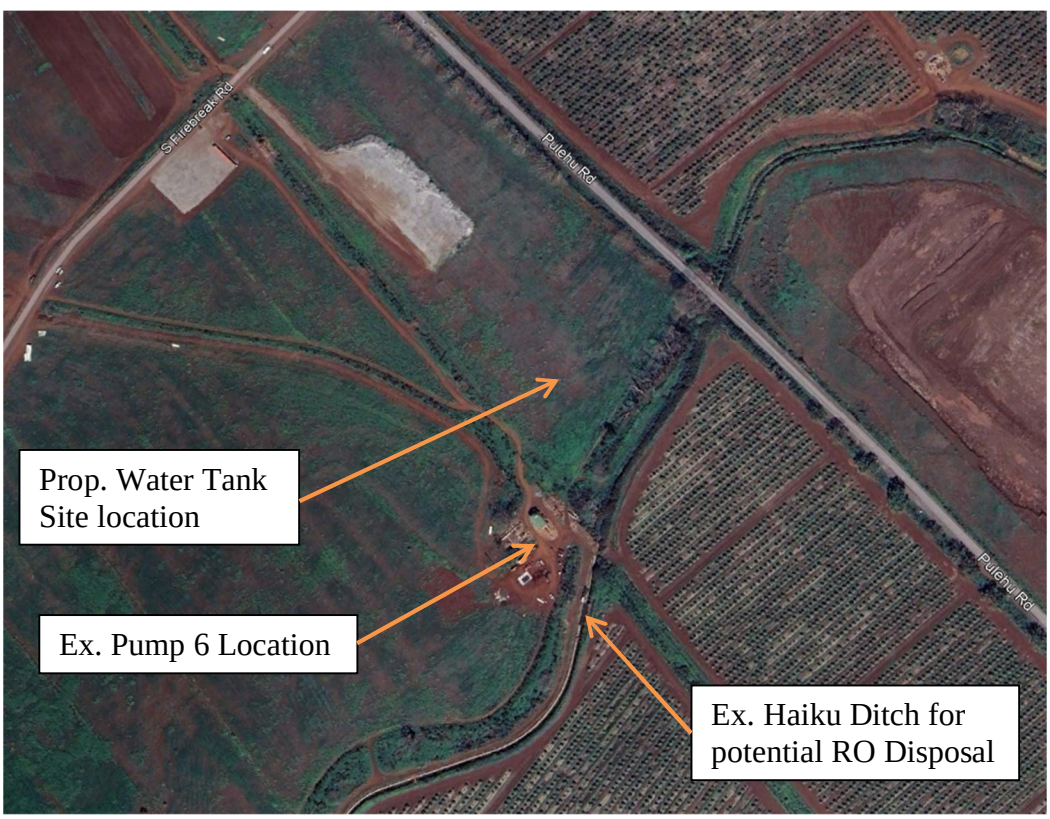


Figure 19: Puʻunēnē – Pump No. 6 Aerial Map

As the plan for the RO disposal is preliminary at this time, the applicant is considering other potential alternatives for disposal including the use of an injection well(s), evaporation ponds and other potential locations for dilution and reuse. The final plan for the disposal of the brine will be finalized prior to the construction. The overall treatment and disposal system will be designed at a later time and will be designed to the County of Maui standards. The design of the treatment system and disposal method may change throughout the design process.

After the groundwater is pumped and treated, the applicant plans to install water storage tanks to store the potable water. The proposed water tanks will be designed and constructed to the County of Maui Department of Water Supply standards. The applicant is working with the County of Maui and Mahi Pono on agreements that include providing potable water to both entities. As the final requested amounts are not confirmed at this time, the final sizing of the water tanks is subject to change. Currently, approximately 1.65 MGD is required to serve the Ho'onani Village project at full build out, Mahi Pono has preliminarily requested for 200,000 GPD, and the County of Maui has requested for half of the total water produced. The preliminary estimated total that is required to serve these uses is around 3.7 MGD. The final pumpage amount and storage capacity will be determined prior to construction. Currently the potential location of the off-site water tanks site would need approximately 4,000 LF of water line to convey the water down Pūlehu Road, and to the project site. Any proposed connections to the County of Maui's water system will be determined at a later time.

The applicant's goal is to create a long-term water source that includes the modification to Pump 6, a treatment system, storage system and distribution system. The entire system will be designed and constructed to meet the requirements of the County's Department of Water Supply to the maximum extent possible so that the County will take over ownership and operation of the system after the system is in operation. See the Preliminary Off-site Distribution System Map in Figure 17 above, as well as attached in Appendix 'D' for the approximate location of the water tanks and pump site.

9.4 Water System Alternatives

Water alternatives to serve the proposed development are limited. Water availability for domestic use is an ongoing issue for the island of Maui. Due to the large water demand of the project, connecting to the existing County system is not feasible. The existing water system capacity and infrastructure are insufficient to properly serve the development. The new water demand of the site would put a massive burden on the existing system. For this reason, the applicant is proposing to modify an existing water source and distribution system to serve the development.

The preferred alternative is to modify the existing water source, Pu'unēnē – Pump No. 6, to serve the site. Should the existing well not be able to service the site, the alternatives for water service are to drill a new off-site water source, or to connect to another private water

source and system. The creation of a new water source would include the construction of a new well, pumping system, storage tanks, and a distribution main from the well site to the project site. The location of a future well site would be confirmed prior to construction plan approval. This alternative would require greater construction costs to create the water source and would propose an additional well into the aquifer.

The next alternative would be to have an agreement with a nearby private water system to serve the development. There is an existing private water source on the adjacent property just makai of the site that will serve the Maui Business Park development. However, this water source is at a lower elevation than the proposed Hoʼonani Village and there would likely not be enough pressure to serve the site at higher elevations. Modifications would need to be made to the pumping system to serve the development. Additionally, it is likely that the water source is not approved to pump the additional approximate 1.65 MGD that would be necessary to serve the development. Without the allowed allocation for this private water source, and the existing elevation being below the project site, this is not the preferred alternative for water service.

10.0 PROPOSED WASTEWATER SYSTEM

The proposed development does not have any public wastewater lines adjacent to the site to connect to. The closest existing system is a private system that will be constructed with the Maui Business Park and connects to the downstream public wastewater system. The nearest connection to the public wastewater system is near the terminus of Pākaula Street. Both of these systems convey wastewater to the Wailuku/Kahului Wastewater Treatment Plant. Agreements with the adjacent property owners would be needed to allow the project to connect to these systems. Both systems are comprised of gravity sewer lines that end up connecting on the makai side of Mayor Elmer F. Carvalho Way. See the attached Existing Wastewater System GIS map in Appendix ‘A’.

The preferred alternative to serve the project would be to connect to the County of Maui’s wastewater system. Unfortunately, the comment letter from the Department of Environmental Management indicates that the existing wastewater system does not have the capacity to manage all of the additional wastewater that the proposed project would generate. It was noted in the letter that approximately 7,900 LF of existing sewer lines may have to be upsized to serve the Hoʻonani Village project. These additional construction costs may make this alternative not practical for the final build out of the project. Additionally, the letter indicates that the Wailuku/Kahului WWTP does not have the capacity to serve the entire development. Therefore, for the completed Hoʻonani Village to be served by the public system, sewer flows will have to be diverted to the Central Maui WWTP, which will be constructed in the future to alleviate some of the flows directed at the Wailuku/Kahului WWTP. As many of these factors are out of the applicant’s control, the construction of a new WWTP is being analyzed and could be built at the start of development to serve the initial phases, or later in the construction timeline.

The Department of Environmental Management indicated that the project may be allowed to connect one or more of the initial phases to the public system without improvements to the existing sewer system. As the project gets built out in phases, the Department would assess additional impacts to the existing system to analyze if capacity would be available. As available capacity in the County system will change throughout the phased build out of the project, the applicant will continue to coordinate with the department on the County's ability to serve the project.

The applicant is proposing the installation of a private wastewater system on site to serve the development. The system will likely include private sewer lines and structures throughout the site, a pump station at the low point of the site, and a wastewater treatment plant. The system is currently proposed to be privately owned and maintained but there is a possibility that in the future the system could be turned over to the County of Maui.

As mentioned above, the applicant is working with the County of Maui to potentially serve the beginning phases of Hoʻonani Village by connecting to the existing privately owned system to the north of the project site or the public system in Pākaula Street that connects to the public sewer system and the Wailuku/Kahului WWTP. As construction progresses, and if needed, the wastewater treatment plant and pump station will be constructed on site, and the gravity sewer system will be diverted to connect to the sewer pump station. The sewer pump station is proposed to be located near the point of connection to the existing system to limit the piping rerouting needed. Each building on site will be connected to the gravity system by individual sanitary service laterals. The pump station will then pump the waste into a pressurized system to the proposed wastewater treatment plant that will be located on the southwestern end of the project site.

The wastewater treatment plant is planned to be designed to treat wastewater and produce reusable R-1 water. R-1 recycled water, as defined by the Hawaiʻi Department of Health (DOH) under Hawaiʻi Administrative Rules (HAR) Chapter 11-62, is tertiary-treated, filtered, and disinfected wastewater that meets the State's highest recycled water quality standard for unrestricted public reuse. In the County of Maui, R-1 water may be used for irrigation of public parks, playgrounds, school grounds, athletic fields, roadway medians, cemeteries, golf courses, and landscaped areas associated with residential, commercial, resort, and institutional developments. It may also be used for certain agricultural applications, including irrigation of non-food crops and food crops where the edible portion does not come into direct contact with irrigation water, subject to DOH approval. Additional approved uses may include industrial cooling, construction dust control (under controlled conditions), toilet and urinal flushing in dual-plumbed systems, and other non-potable applications where public exposure is anticipated but managed in accordance with State guidelines. All R-1 systems must utilize purple-colored piping, signage, cross-connection controls, and monitoring protocols, and require DOH approval and a recycled water use agreement with the County of Maui Department of Environmental Management.

Uses that are not permitted include direct human consumption, food preparation, or any application involving direct potable use unless specifically authorized under a separate advanced water reuse program. R-1 water may not be used for irrigation methods that result in uncontrolled runoff, ponding, or overspray onto adjacent potable water facilities, open food handling areas, or surface waters without regulatory authorization. Spray irrigation of crops consumed raw is restricted unless safeguards are in place and specifically approved by DOH. Discharge of R-1 water to storm drains, streams, or coastal waters without a National Pollutant Discharge Elimination System (NPDES) permit is prohibited. All uses must comply with setback requirements from potable water sources and be operated to prevent cross-connection with potable systems.

The project’s goal for producing R-1 water would be to replace existing potable water uses on site or in the nearby area as well as increase the amount of available irrigation water that can be utilized on- and off-site. The R-1 water would be pumped through a non-potable system that would be sized only for irrigation purposes to provide irrigation throughout the project site. Additionally, potential partnerships with adjacent landowners or agricultural businesses could be made to provide additional ways to utilize the R-1 water. The applicant is actively working with entities such as Mahi Pono and Maui Business Park for potential agreements to utilize the R-1 water. Final agreements and uses of the R-1 water will be finalized at a later time.

During wet periods when the need for irrigation uses is reduced, redundancy alternatives will be utilized for disposal of the R-1 water. The potential disposal design may include but is not limited to underground infiltration through large chambers or absorption beds, above ground infiltration basin(s), Soil Aquifer Treatment beds, and Underground Injection control (UIC) wells, subject to State Department of Health approval. Less common but potential disposal methods include NPDES-permitted surface discharge or industrial reuse applications. The infiltration disposal methods promote aquifer recharge. All recycled water uses and disposal options require regulatory approval, monitoring, and compliance with Hawai‘i Administrative Rules Chapter 11-62.

The creation of an R-1 recycled water system promotes the use of green infrastructure for the Ho‘onani Village project. The reuse of the R-1 water to replace the use of potable water helps to conserve the natural resource. The recharging of the aquifer through infiltration helps to minimize the project’s impact on the environment. The final methods of using or disposing of the recycled water will be confirmed with final construction plans.

The preliminary wastewater system layout is shown below in Figure 20, as well as on the attached Preliminary Sanitary Sewer Master Plan in Appendix ‘E’. There are many different routes and alignments that could be utilized for the proposed pipe network to make it as efficient as possible. The location of the proposed mains is subject to change. The proposed slopes of the main lines, the line sizes and the proposed structures will be designed to meet the requirements of the County of Maui Wastewater Reclamation Division.

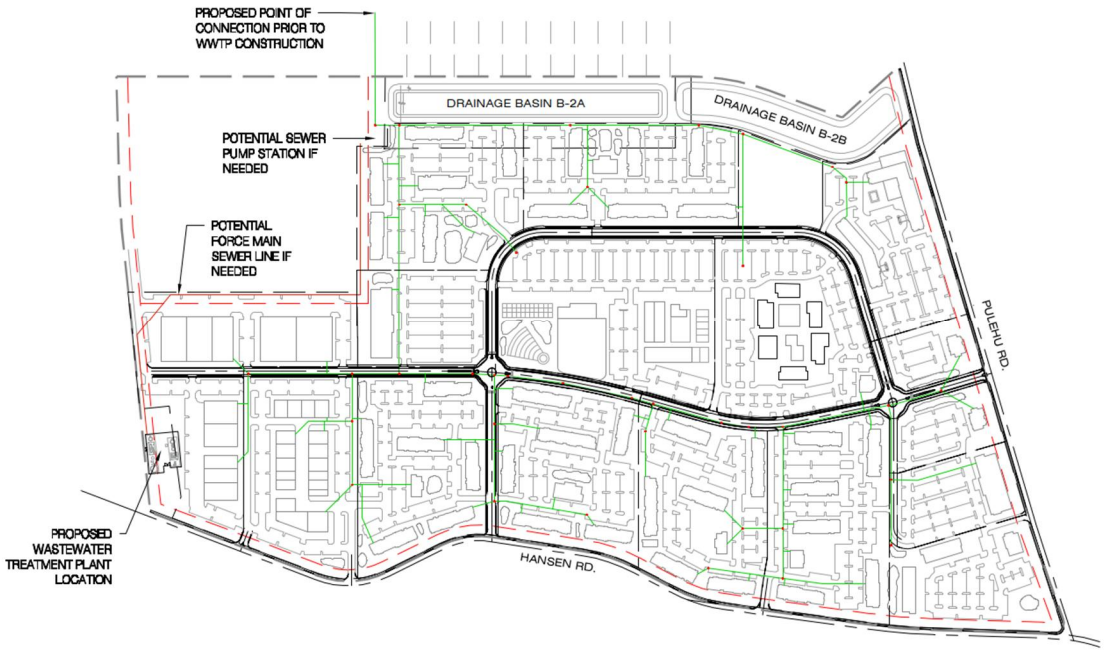


Figure 20: Preliminary Wastewater System Layout

10.1 Wastewater Sizing Calculations

The proposed sanitary sewer system will be made up of various sizes of PVC or HDPE pipe. The individual sanitary sewer laterals will likely be a minimum size of 6 inches per the County of Maui code for the Wastewater Reclamation Division. The approximate wastewater flow rates for the mixed-use site were broken up by use type and follow the Wastewater Flow Standards of the County of Maui's Wastewater Reclamation Division. The site plan for the residential units, commercial spaces and industrial spaces is subject to change through the design process, and the calculations below represent the current land use concept plan at the time of this report.

The existing plan for the residential buildings has a total of 1,608 units with a mixture of 1-, 2- and 3-bedroom type units. These units were estimated at 255 gal/unit according to the County of Maui Wastewater Reclamation Division. The approximate total residential wastewater flow is 410,040 gpd. The commercial spaces were divided into an approximate breakdown between retail shops, restaurants, office buildings, hospitality and light industrial areas because each of these uses have different estimated wastewater flow rates. Commercial retail spaces were estimated to have 1 employee per 350 square feet with 15 gallons per employee. Therefore, for 16,500 square feet of retail space across several phases, 47 employees will generate 707 gpd of wastewater. The restaurants were estimated to have approximately 60% usable space. Of that usable space, it was assumed that there is 1 customer seat per 20 square feet and each seat would generate 80 gallons of wastewater. The proposed final buildout of the project is expected to have restaurants totaling 23,500 square feet, which would include 705 customers generating 56,400 gpd. It is assumed that office spaces would have 1 employee per 200 square feet of floor area and each employee

would generate 20 gpd. A total of 100,000 square feet of offices is expected through several phases of the project, which would generate 10,000 gpd of wastewater from 500 employees. Ho’onani Village will also include hospitality spaces such as hotels, which assume 300 gallons of wastewater per unit. For 240 units, 72,000 gallons of wastewater will be generated. Light industrial areas expect 1 employee per 500 square feet of floor area and 25 gallons of wastewater per employee. Therefore, for 255,000 square feet of space, there is an estimated 510 employees generating 12,750 gallons. The proposed project will also include miscellaneous commercial spaces such as entertainment halls, civic centers, etc. However, these spaces are subject to change as design progresses. An estimate for wastewater generated through these spaces was calculated and included in the total commercial breakdown. For the entire buildout of the project, commercial spaces are estimated to generate approximately 165,031 gpd of wastewater.

The mixed-use site was modeled to overestimate the wastewater flow of the site, and some of the later phases are subject to change. The average wastewater flow for the proposed system was calculated to be 575,071 gallons per day. Per the County of Maui Wastewater Reclamation Division, the dry and wet weather infiltration/inflow need to be included in the calculations. During dry and wet weather conditions, there is water underground that could infiltrate the wastewater pipes and structures and enter the system. These conditions were analyzed for wastewater lines laid above the normal groundwater table. Dry weather infiltration/inflow is calculated at 5 gallons per capita per day. With approximately 7,928 people on site per day, an additional 39,641 gallons per day may enter the sewer system. Wet weather infiltration/inflow is estimated at 1,250 gallons per acre per day. The project buildout is approximately 151.50 acres, which would total 189,375 gpd of flow. The complete breakdown of the Wastewater System Calculations can be found in Appendix ‘E‘.

The Total Average Wastewater Flow was calculated by taking the average wastewater flow plus dry and wet weather infiltration/inflow and was calculated to be 804,086 gpd. To appropriately size the proposed wastewater treatment plant, the total wastewater flow was increased by 25% as a factor of safety. Therefore, the wastewater treatment plant should be designed to treat a minimum volume of 1,005,108 gallons per day. The final wastewater treatment plant will be designed by others in the future and will be designed with sufficient volume to meet all the Hawai‘i Department of Health and County of Maui wastewater flow requirements. The peak wastewater flow for the entire project would be used to design the flow within the wastewater lines. The peak flow rate was calculated by multiplying the total average daily site wastewater flow rate by a peaking factor of 2 to give the site a peak flow rate of 2.488 cfs.

Table 10-1: Wastewater System Sizing Calculations				
Phase	**Type of Use**	**Quantity of unit**	**Average Daily Flow (gpd)**	**Average Flow Rate (cfs)**
1	Residential	268 units	68,340	0.106
2	Residential Commercial (retail) Commercial (restaurant)	268 units 5,000 sq. ft. 5,000 sq. ft.	80,712	0.125
3	Residential Commercial (light industrial)	268 units 75,000 sq. ft.	72,090	0.112
4	Residential Commercial (office)	268 units 45,000 sq. ft.	72,840	0.113
5	Residential Commercial (retail) Commercial (restaurant) Commercial (entertainment)	268 units 11,500 sq. ft. 18,500 sq. ft. 5,000 sq. ft.	113,966	0.176
6	Residential	268 units	68,340	0.106
7	Commercial (hospitality)	240 units	75,600	0.111
8	Commercial (light industrial) Commercial (office)	180,000 sq. ft. 55,000 sq. ft.	14,500	0.022
9	Commercial (civic) Commercial (future entertainment)	30,000 sq. ft. 17.40 ac	8,683	0.013
Dry Weather Infiltration/Inflow	5 gal/capita/day	7,928 capita	39,641	0.061
Wet Weather Infiltration/Inflow	1,250 gal/acre/day	151.50 ac	189,375	0.293
Project Total Wastewater Flow	**-**	**-**	**804,086**	**1.244**
Min. WWTP Volume	**(Additional 25% factor of Safety)**	**-**	**1,005,108**	**1.555**
Project Peak Wastewater Flow Rate	**(2.0 Peaking factor multiplied to Project Total Wastewater Flow)**	**-**	**-**	**2.488**

The gravity sewer mains were sized to flow at 50% full to ensure enough capacity. With a design peak flow rate of the proposed site being 2.488 cfs, an 18-inch pipe would be needed to convey the flow. Smaller sized pipes ranging between 6-inch to 18-inch will also be utilized for areas with lower expected flows such as building laterals. The complete analysis

of the proposed wastewater system and the plans for the preliminary wastewater master plan can be found in Appendix 'E'.

The typical conversion of waste to R-1 water has an approximate yield of 85%. The expected R-1 production at full build out will be approximately 700,000 GPD. This will potentially relieve the water demand for the site for irrigation purposes and will help reduce water use by other agricultural businesses by replacing their current irrigation water with recycled water. As discussed above, the final use and disposal methods for the R-1 water will be finalized prior to approval and construction of the system.

10.2 Wastewater System Alternatives

The wastewater system does not have many alternatives. The nearest existing public system to the development is just north of the site at the terminus of Pākaula Street, and the nearest private sewer system is planned to be constructed in the adjacent Maui Business Park. Both of these systems connect to the County of Maui public wastewater system that conveys the wastewater to the Wailuku/Kahului Wastewater Treatment Plant. Due to the large wastewater flow generated by the development, connecting to the adjacent sanitary system will likely include the upsizing of 7,900 LF of existing pipes. Additionally, the Wailuku/Kahului WWTP does not currently have the capacity to serve the entire development. A rough construction cost for these upgrades would be around $25 million. The rough cost for the construction of the WWTP is around $18 million with an approximate yearly operations cost of $500k per year. Due to the large cost difference of the upgrades to the County system and the lack of the environmental benefits of potential R-1 water, the connection to the County system with the needed upgrades are impractical for the development. The applicant is planning to work with the County of Maui to connect to the existing system for early phases of the development in hopes that additional capacity becomes available in the future at the Wailuku/Kahului WWTP.

A new wastewater treatment plant in Central Maui is being planned and designed. An alternative for wastewater service is to connect to this new WWTP. However, there are several factors as to why this is impractical. First, the Central Maui WWTP is over 3.5 miles away to the southwest of the proposed development. This would require an extremely long run of pipe to connect to the site. Another issue would be the timing of the project and when sewer service would be available for the development. The Central Maui WWTP would have to be in service prior to the first phase of the Ho'onani Village being completed to be a potential source to serve the site. Due to these factors this alternative is not the chosen design path.

The preferred alternative should connection to the County system be infeasible is to construct the new WWTP. This alternative allows the applicant to control the timing of the wastewater system to ensure that service is available as it would be developed with the site. Additionally, this plan provides R-1 water from the WWTP to be utilized for irrigation of the open spaces and landscape features on site and promotes a green infrastructure site design.

The location of the WWTP would also be on site, so there would not be the need for a long run of pipe to convey the sewage from the pump station to the WWTP.

The potential alternatives for the use or disposal of the R-1 water were discussed above in the beginning of Section 10. These methods include but are not limited to irrigation use on and off the site, underground or above ground infiltration, Soil Aquifer Treatment beds, or an injection well. The final methods for the use and disposal of the R-1 water will be determined later in the design process.

11.0 PROJECT ALTERNATIVES

Through the EIS process, the applicant is required to analyze various potential project plan alternatives. The proposed alternatives that are considered are the no-action alternative, alternative design and an alternative location.

1) Preferred Alternative: Proposed Ho'onani Village project plan. This plan was thoroughly analyzed in the above chapters and the impacts to the project site, adjacent road network, drainage systems, water systems and wastewater systems. The alternatives considered below will be discussed on how the impacts to the systems change for that specific alternative.

2) No Action Alternative: Under the No-Action Alternative, the site would not be urbanized and would remain within the State Agricultural District and County Agricultural zoning. Rather than remaining unused, it is assumed that the property could be used for agricultural purposes, potentially as a diversified farm operation or agricultural subdivision consistent with existing entitlements.

   Although, the impacts for drainage and sewer would be greatly reduced, a new water system would have to be constructed to irrigate the site. A new water system to serve agricultural land would be sized for 5,000 gal/acre. As the site is 166.5 acres in size, the system would have an overall demand of approximately 832,500 gallons per day. The water demand for an agricultural farm is only about 165,000 gallons per day less than the preferred alternative. At this time there are no current sources for domestic water or recycled water that can provide this large volume of water to irrigate the site. The most cost-effective route to provide water to irrigate an agricultural farm at the site is to construct a new water system. This would involve drilling two new approximately 80-foot-deep irrigation wells on site and constructing a distribution and piping system to irrigate the site. The approximate cost of this would be around $6 million for the initial construction and another $200,000 per year for operations and maintenance. This large overhead cost for the construction and maintenance of a new irrigation system would likely prevent any farming operation from being viable on site. This is not the preferred alternative.

3) Alternative Design: In response to comments received from the Hawai'i Department of Transportation (HDOT) and members of the community regarding residential development within airport noise contours associated with Kahului Airport, a Design Alternative was evaluated that relocates all residential uses outside of the identified airport noise contour area.

   Under this Design Alternative, the residential footprint would be substantially reduced and concentrated on approximately 17 acres of the site located outside of the higher noise exposure area. As a result, the total multi-family residential program would be reduced from approximately 1,608 units under the Preferred Alternative to approximately 457 units. Gross floor area for residential development would decrease from approximately 1,410,500 square feet to approximately 393,000 square feet.

   While mixed-use components would remain part of the project, their overall scale would be proportionately reduced relative to the Preferred Alternative. Under the Design Alternative, the development program would consist of approximately:

   - 393,000 square feet of multi-family residential (approximately 457 units)
   - 270,000 square feet of hotel use
   - 35,000 square feet of retail
   - 40,000 square feet of office
   - 45,000 square feet of industrial space

   This results in a total development program of approximately 783,000 gross square feet, compared to approximately 1,870,200 gross square feet under the Preferred Alternative.

   Under this alternative, the residential units and other proposed uses were reduced by about 70%. As such, the water demand for the project would be greatly reduced in comparison to the preferred alternative. That being said, the project site would still be required to create a long-term water source to serve the site. The water source would have to produce less water but would still require a large overhead cost construct all of the elements of the water system including the pumps, treatment system, storage tanks, distribution pumps and water lines. With less residential units to help subsidize these costs, it would make this alternative less practical.

   The alternative design project would reduce the amount of sewage produced to around 250,000 GPD. As stated in the letter from the Department of Environmental Management, the project site is out of the current sewer service area, and the existing sewer system is undersized to serve the project. Similar to the preferred alternative, this alternative would have to explore the construction

of an onsite WWTP or would have to increase the capacity of the County sewer system. The large overhead costs would make this alternative impractical.

The alternative design would address storm drainage on site similar to the preferred alternative and would reduce traffic impacts on the existing road system due to the reduced quantity of proposed uses on site and the additional traffic associated with them.

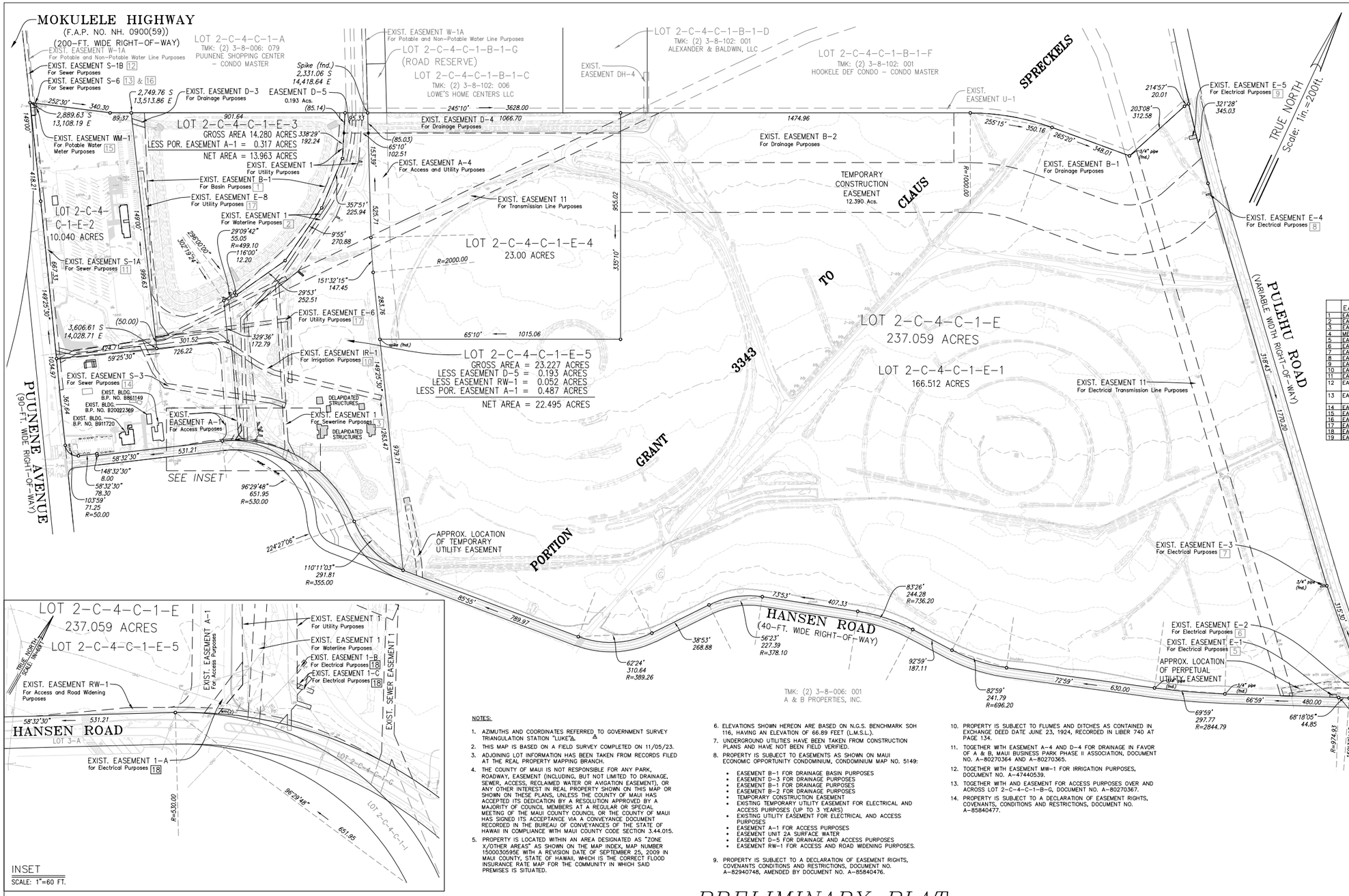
The substantial capital costs associated with developing a new water source and distribution system, in addition to either constructing a wastewater treatment plant or upgrading the County sewer infrastructure, combined with the significant reduction in revenue-generating assets required to offset these expenses, render this alternative considerably less feasible to implement.

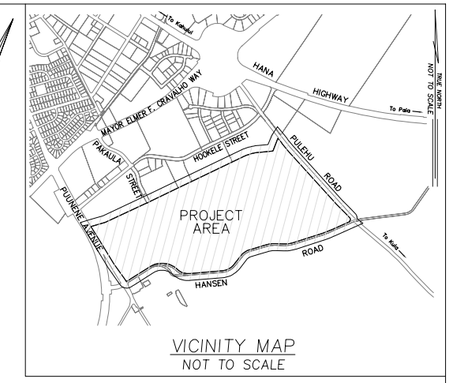
4) Alternative Location: The Alternative Location scenario considers the potential to develop the proposed Hoʻonani Village land plan on a different parcel within the County of Maui. This analysis responds in part to public comments suggesting that the current project site's location may not be optimal due to its position under the Kahului Airport flight path. Specifically, comments received from community member Dick Mayer referenced two potential alternative sites: approximately 440 acres of County-owned land within the Waikapū Country Town area, and a separate 192-acre parcel within Maui Lani. The Applicant has no ownership interest or land control over either of the suggested parcels. This alternative is not feasible.

12.0 CONCLUSION

Based on the supporting stormwater calculations and attached analysis, it is the opinion of Pioneer Design Group-Hawaiʻi, LLC. that the development of the Hoʻonani Village will not adversely affect the existing downstream drainage system or adjacent property owners. Water quantity control meeting the Drainage standards for the County of Maui Title MC-15, Chapter 4, and water quality treatment meeting the Maui County Chapter 15-111 "Rules for the Design of Storm Water Treatment Best Management Practices" will be provided by the on-site detention basins or an alternative design. The water and wastewater systems will be designed to efficiently serve the site, to meet all the associated requirements, and to limit disturbances to the adjacent parcels. All the infrastructure associated with the project will be fully designed for construction plan review and will be approved prior to construction.

APPENDIX 'A' – EXISTING SITE INFORMATION





VICINITY MAP
NOT TO SCALE

EXISTING EASEMENTS

	EASEMENT	PURPOSE	IN FAVOR OF	DOCUMENT
1	EASEMENT 1	UTILITY	MAUI ELECTRIC CO. LTD.	L.16383 P.392
2	EASEMENT 1	WATER PIPELINE	COUNTY OF MAUI	L.19066 P.747
3	EASEMENT 1	SEWERLINE		DOC.NO. 2008-010966
4	MECO. EASEMENT (BLANKET)	UTILITY	MAUI ELECTRIC CO. LTD.	DOC. NO. 2011-053742
5	EASEMENT E-1	ELECTRICAL		SUB FILE NO. 3.2208
6	EASEMENT E-2	ELECTRICAL		SUB FILE NO. 3.2208
7	EASEMENT E-3	ELECTRICAL		SUB FIEL NO. 3.2208
8	EASEMENT E-4	ELECTRICAL		SUB FILE NO. 3.2208
9	EASEMENT E-5	ELECTRICAL		SUB FILE NO. 3.2208
10	EASEMENT IR-1	IRRIGATION	A&B, LLC.	DOC. NO. A-47440534
11	EASEMENT S-1A	SEWER	A&B, LLC.	DOC. NO. A-47440535
12	EASEMENT S-1B	SEWER	TMK(2)3-8-006:01&03 AND LOT 2-C-4-C-1-E	DOC. NO. A-47440536
13	EASEMENT S-6	SEWER	TMK(2)3-8-006:01&03 AND LOT 2-C-4-C-1-E	DOC NO. A-47440537
14	EASEMENT S-3		A&B, LLC.	DOC. NO. A-47440538
15	EASEMENT WM-1	WATER METER	M.B.P. PH. II ASSOC.	DOC. NO. A-47440540
16	EASEMENT S-6	SEWER	M.E.O. INC.	DOC. NO. A-47440545
17	EASEMENT E-6 & E-8	UTILITY	MAUI ELECTRIC CO., LTD.	DOC. NO. A-82310960
18	EASEMENT 1-A, 1-B & 1-C	ELECTRICAL	MAUI ELECTRIC CO., LTD.	DOC. NO. A-83710533
19	EASEMENT 11	ELECTRICAL	MAUI ELECTRIC CO., LTD.	DOC. NO. 96-170196

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

INSET
SCALE: 1"=60 FT.

NOTES:

1. AZIMUTHS AND COORDINATES REFERRED TO GOVERNMENT SURVEY TRIANGULATION STATION "LUKE".
2. THIS MAP IS BASED ON A FIELD SURVEY COMPLETED ON 11/05/23.
3. ADJOINING LOT INFORMATION HAS BEEN TAKEN FROM RECORDS FILED AT THE REAL PROPERTY MAPPING BRANCH.
4. THE COUNTY OF MAUI IS NOT RESPONSIBLE FOR ANY PARK, ROADWAY, EASEMENT (INCLUDING, BUT NOT LIMITED TO DRAINAGE, SEWER, ACCESS, RECLAIMED WATER OR AVIGATION EASEMENT), OR ANY OTHER INTEREST IN REAL PROPERTY SHOWN ON THIS MAP OR SHOWN ON THESE PLANS, UNLESS THE COUNTY OF MAUI HAS ACCEPTED ITS DEDICATION BY A RESOLUTION APPROVED BY A MAJORITY OF COUNCIL MEMBERS AT A REGULAR OR SPECIAL MEETING OF THE MAUI COUNTY COUNCIL OR THE COUNTY OF MAUI HAS SIGNED ITS ACCEPTANCE VIA A CONVEYANCE DOCUMENT RECORDED IN THE BUREAU OF CONVEYANCES OF THE STATE OF HAWAII IN COMPLIANCE WITH MAUI COUNTY CODE SECTION 3.44.015.
5. PROPERTY IS LOCATED WITHIN AN AREA DESIGNATED AS "ZONE X/OTHER AREAS" AS SHOWN ON THE MAP INDEX, MAP NUMBER 15000305 95E WITH A REVISION DATE OF SEPTEMBER 25, 2009 IN MAUI COUNTY, STATE OF HAWAII, WHICH IS THE CORRECT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES IS SITUATED.
6. ELEVATIONS SHOWN HEREON ARE BASED ON N.G.S. BENCHMARK SOH 116, HAVING AN ELEVATION OF 66.89 FEET (L.M.S.L.).
7. UNDERGROUND UTILITIES HAVE BEEN TAKEN FROM CONSTRUCTION PLANS AND HAVE NOT BEEN FIELD VERIFIED.
8. PROPERTY IS SUBJECT TO EASEMENTS AS SHOWN ON MAUI ECONOMIC OPPORTUNITY CONDOMINIUM, CONDOMINIUM MAP NO. 5149:
   - EASEMENT B-1 FOR DRAINAGE BASIN PURPOSES
   - EASEMENT D-3 FOR DRAINAGE PURPOSES
   - EASEMENT B-1 FOR DRAINAGE PURPOSES
   - EASEMENT B-2 FOR DRAINAGE PURPOSES
   - TEMPORARY CONSTRUCTION EASEMENT
   - EXISTING TEMPORARY UTILITY EASEMENT FOR ELECTRICAL AND ACCESS PURPOSES (UP TO 3 YEARS)
   - EXISTING UTILITY EASEMENT FOR ELECTRICAL AND ACCESS PURPOSES
   - EASEMENT A-1 FOR ACCESS PURPOSES
   - EASEMENT UNIT 2A SURFACE WATER
   - EASEMENT D-5 FOR DRAINAGE AND ACCESS PURPOSES
   - EASEMENT RW-1 FOR ACCESS AND ROAD WIDENING PURPOSES.
9. PROPERTY IS SUBJECT TO A DECLARATION OF EASEMENT RIGHTS, COVENANTS CONDITIONS AND RESTRICTIONS, DOCUMENT NO. A-82940748, AMENDED BY DOCUMENT NO. A-85840476.
10. PROPERTY IS SUBJECT TO FLUMES AND DITCHES AS CONTAINED IN EXCHANGE DEED DATE JUNE 23, 1924, RECORDED IN LIBER 740 AT PAGE 134.
11. TOGETHER WITH EASEMENT A-4 AND D-4 FOR DRAINAGE IN FAVOR OF A & B, MAUI BUSINESS PARK PHASE II ASSOCIATION, DOCUMENT NO. A-80270364 AND A-80270365.
12. TOGETHER WITH EASEMENT MW-1 FOR IRRIGATION PURPOSES, DOCUMENT NO. A-47440539.
13. TOGETHER WITH AND EASEMENT FOR ACCESS PURPOSES OVER AND ACROSS LOT 2-C-4-C-1-B-G, DOCUMENT NO. A-80270367.
14. PROPERTY IS SUBJECT TO A DECLARATION OF EASEMENT RIGHTS, COVENANTS, CONDITIONS AND RESTRICTIONS, DOCUMENT NO. A-85840477.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

PRELIMINARY
SUBJECT TO CHANGE

JUSTIN H. LAPP
LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE No. 12964
EXP. DATE 04/2026

LEGEND

		pp	power pole
bfp	back flow preventer	sdmh	storm drain manhole
cabx	cable television box	sicmh	signal corp manhole
di	drain inlet	sl	street light
ebx	electric box	smh	sewer manhole
fh	fire hydrant	tebx	telephone box
gen	generator	trans	transformer
gw	guy wire	up	utility pole
lp	lamp post	wbx	water box
ohu	overhead utility lines	wv	water valve
pbx	power box	wmh	water manhole

OWNERS: MAUI ECONOMIC OPPORTUNITY, INC.
COUNTY OF MAUI
ALEXANDER & BALDWIN, LLC.
AX HOLDING, LLC.
PUUNENE INDUSTRIAL PARK, LLC.

PRELIMINARY PLAT
FIRST ASSEMBLY OF GOD SUBDIVISION
SUBDIVISION OF LOT 2-C-4-C-1-E
INTO LOTS 2-C-4-C-1-E-1, 2-C-4-C-1-E-2,
2-C-4-C-1-E-3, 2-C-4-C-1-E-4 AND 2-C-4-C-1-E-5
BEING A PORTION OF GRANT 3343 TO CLAUS SPRECKELS
SITUATED AT PUUNENE, WAILUKU, MAUI, HAWAII

TMK: (2) 3-8-006: 004

JUNE 21, 2024

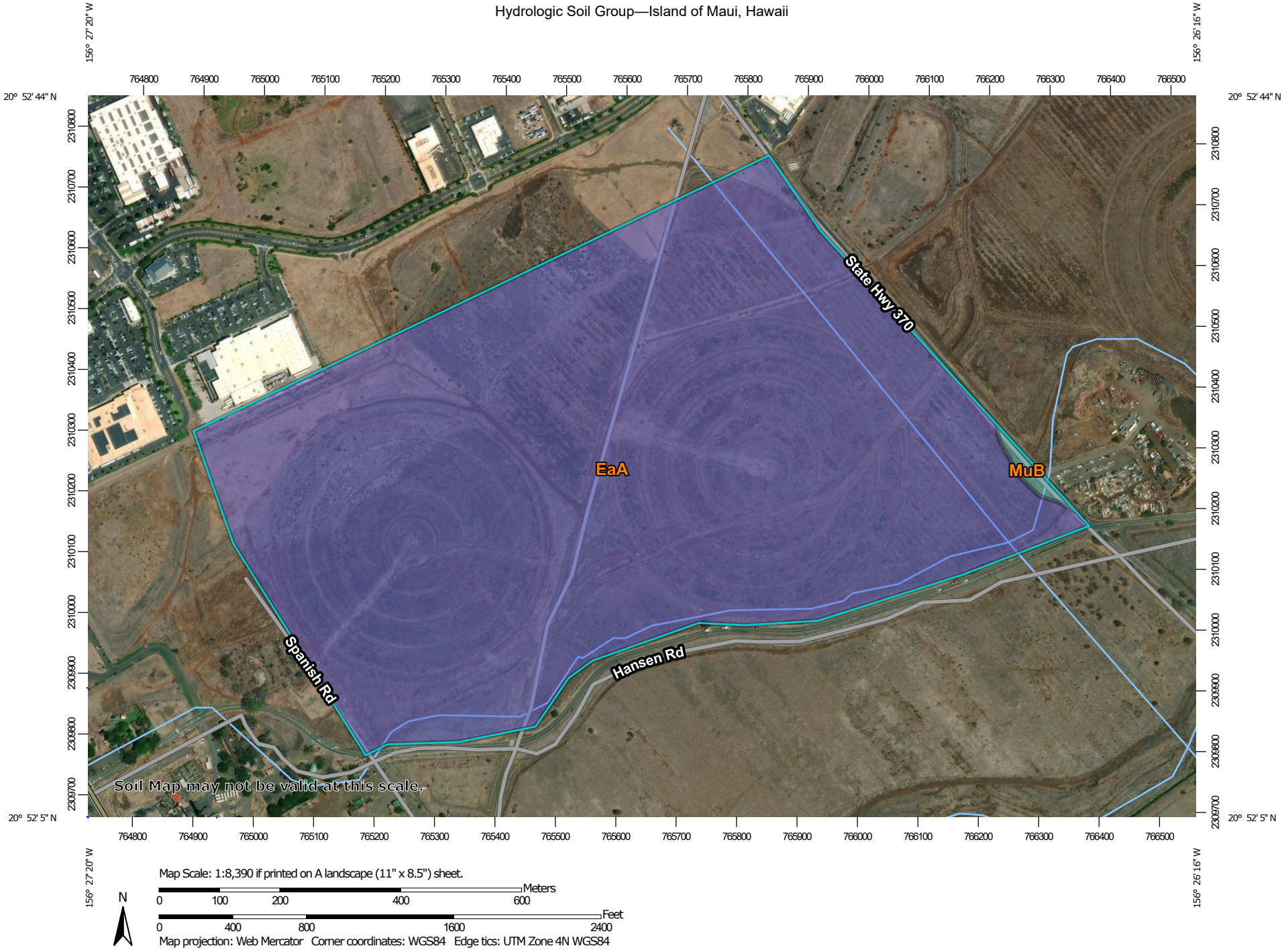
B:\PROJECTS\PDGHAWAII\H109-001\SUBS\ATA SURVEYING\23526PP TO ALPHA.DWG

AUSTIN, TSUTSUMI & ASSOCIATES, INC. CIVIL ENGINEERS • SURVEYORS
1871 WILI PA LOOP SUITE A • WAILUKU, MAUI, HAWAII 96793

24" X 36" = 6 SQ. FT.

JOB NO.: 23-526

Hydrologic Soil Group—Island of Maui, Hawaii



Map Scale: 1:8,390 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 4N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Island of Maui, Hawaii
Survey Area Data: Version 21, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 29, 2017—Oct 11, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
EaA	Ewa silty clay loam, 0 to 3 percent slopes, MLRA 158	B	193.8	99.5%
MuB	Molokai silty clay loam, 3 to 7 percent slopes, MLRA 158	C	0.9	0.5%
Totals for Area of Interest			**194.7**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

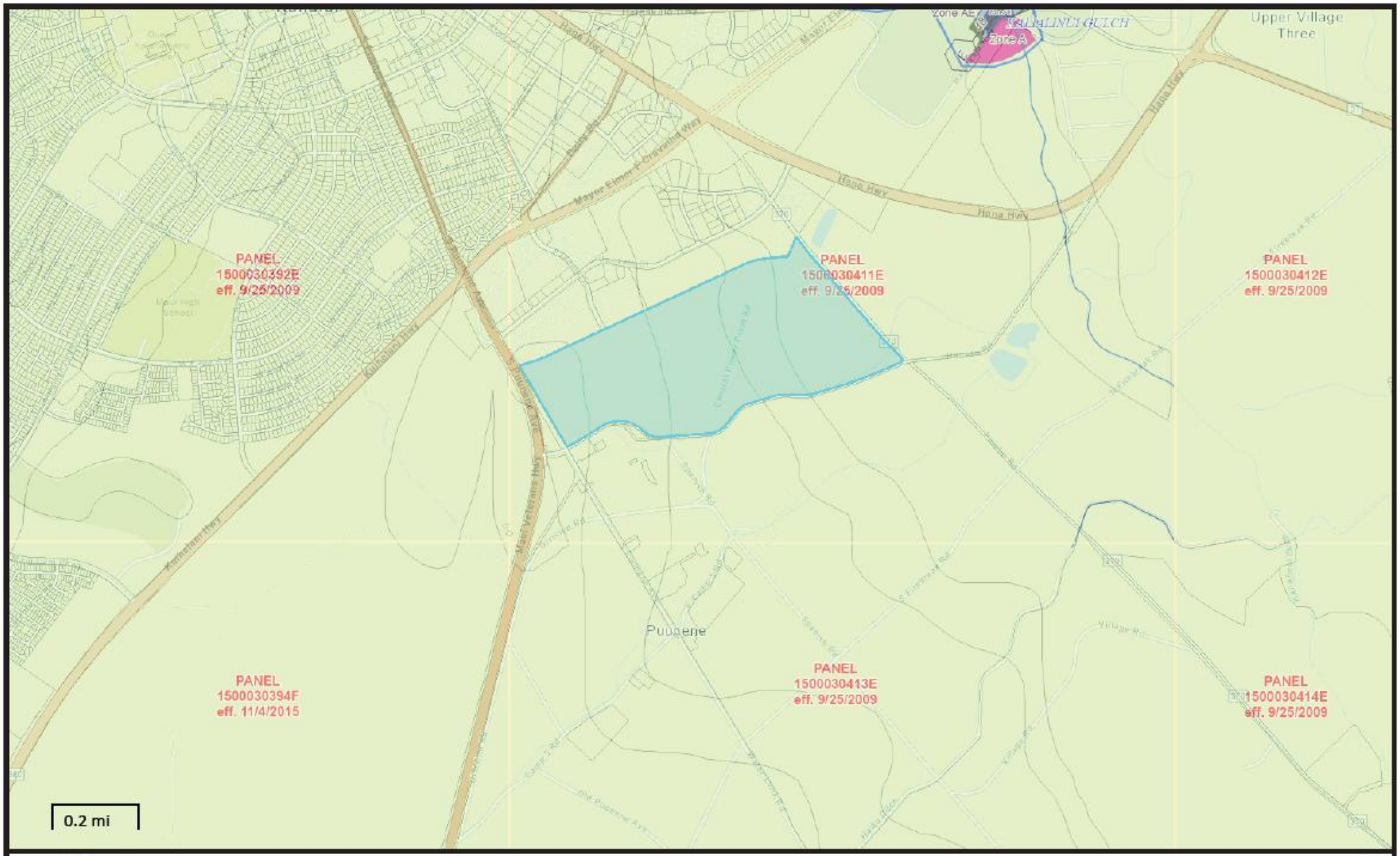
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Flood Hazard Map

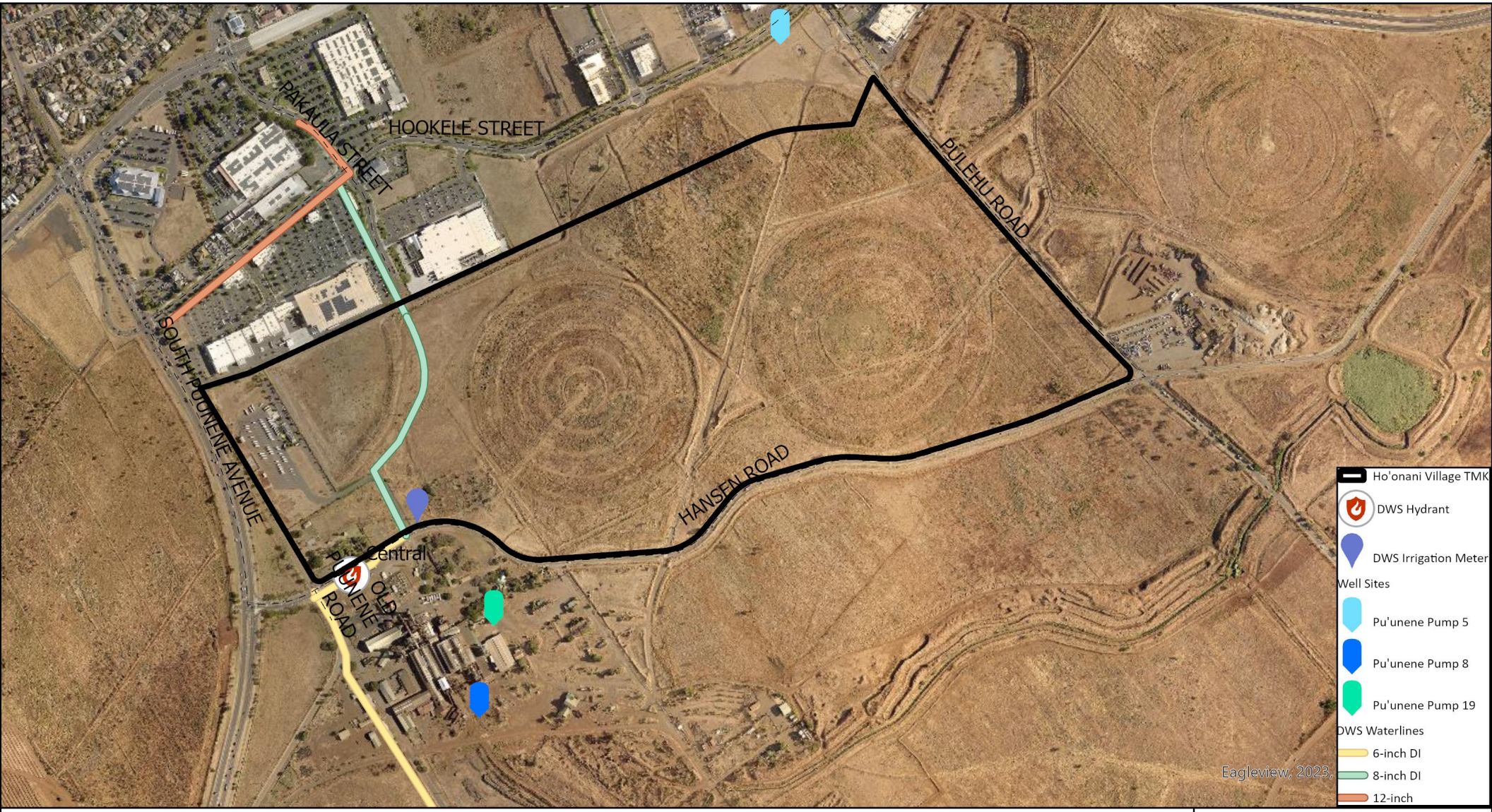
Title: Hoonani Village Flood Hazard Map

Notes: Flood Zone X

Map generated on 10/11/2024

Map Legend

Disclaimer: The Hawaii Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use, accuracy, completeness, and timeliness of any information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR, its officers, and employees from any liability which may arise from its use of its data or information.



Ho'onani Village

21 Hansen Road, Kahului, Maui
TMK (2) 2-3-8-006:004

2026

N

0 0.1 0.2 Mi

0 0.2 0.4 Km

Coordinate System: NAD 1983 StatePlane Hawaii 2 FIPS 5102 Feet

County of Maui Wastewater Infrastructure

Sewer Pumps

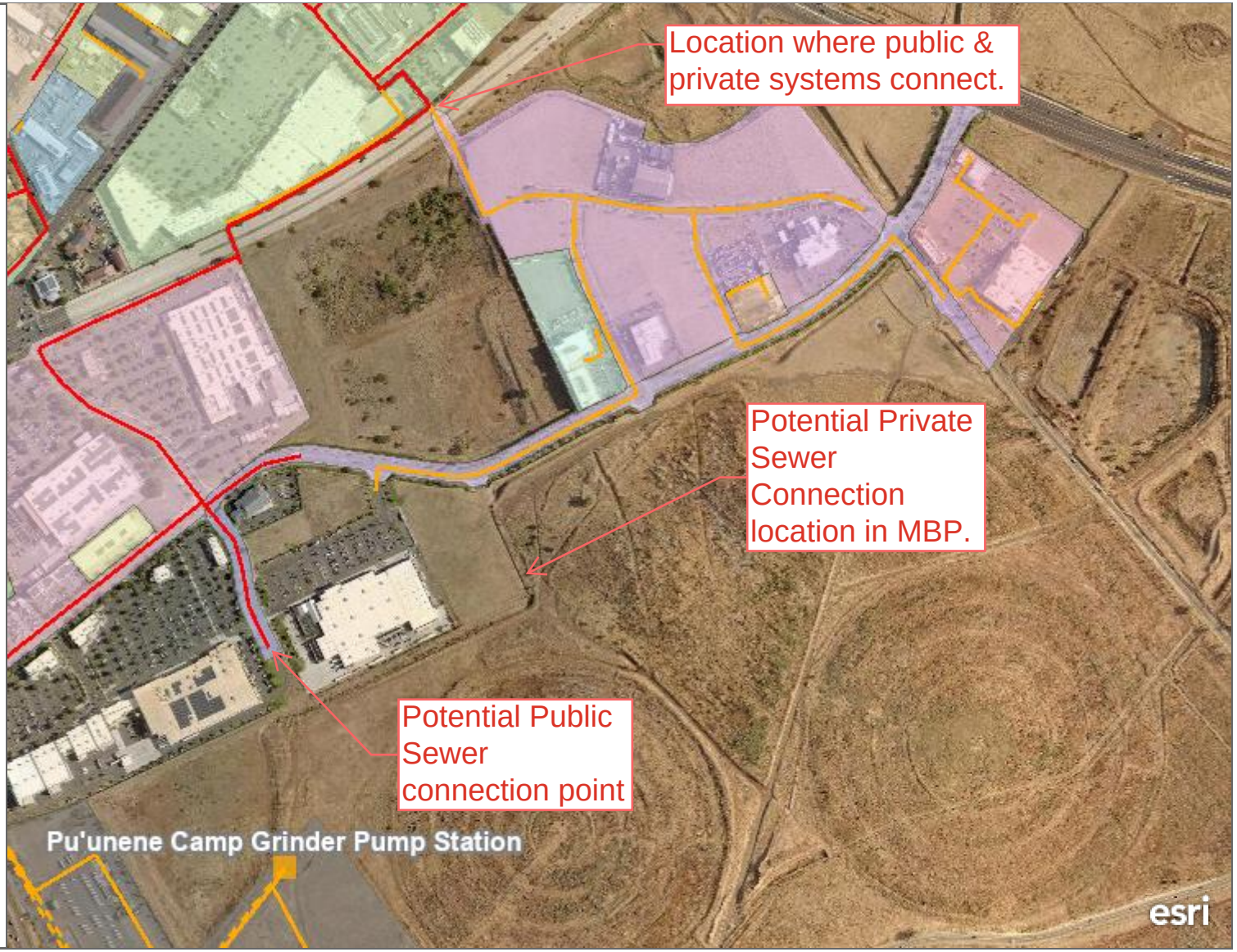
- County of Maui
- Private
- DHHL

Sewer Gravity Mains

- County of Maui
- Private
- DHHL
- Castle and Cook (Private)
- Out of Service
- Non Existent

Sewer Pressurized Mains

- County of Maui
- County of Maui (Back Up)
- Private
- DHHL
- DOT
- Castle and Cook



Complete Maui County Sewer System

Resource Mapping Hawaii, Vantor | Eagleview, 2023. | Eagleview, 2023 | Earthstar Geographics | County of Maui, Wastewater Reclamation Division | County of Maui, Enterprise GIS Department | DSA, Public Works Department, County of Maui, Hawaii | County of Maui Wastewater Reclamation Division

County of Maui Wastewater Infrastructure

Sewer Pumps

- County of Maui
- Private
- DHHL

Sewer Gravity Mains

- County of Maui
- Private
- DHHL
- Castle and Cook (Private)
- Out of Service
- Non Existent

Sewer Pressurized Mains

- County of Maui
- County of Maui (Back Up)
- Private
- DHHL
- DOT
- Castle and Cook

Complete Maui County Sewer System

600ft

Resource Mapping Hawaii, Vantor | Eagleview, 2023. | Eagleview, 2023 | Earthstar Geographics | County of Maui, Wastewater Reclamation Division | County of Maui, Enterprise GIS Department | DSA, Public Works Department, County of Maui, Hawaii | County of Maui Wastewater Reclamation Division

County of Maui Wastewater Infrastructure

Sewer Service Areas

- County of Maui
- Private

Sewer Pumps

- County of Maui
- Private
- DHHL

Sewer Gravity Mains

- County of Maui
- Private
- DHHL
- Castle and Cook (Private)
- Out of Service
- Non Existent

Sewer Pressurized Mains

- County of Maui
- County of Maui (Back Up)

Complete Maui County Sewer System

600ft

Resource Mapping Hawaii, Vantor | Eagleview, 2023. | Eagleview, 2023 | Earthstar Geographics | County of Maui, Wastewater Reclamation Division | County of Maui, Enterprise GIS Department | DSA, Public Works Department, County of Maui, Hawaii | County of Maui Wastewater Reclamation Division

APPENDIX 'B' – PRE-DEVELOPED CONDITION DRAINAGE ANALYSIS

NOAA Atlas 14, Volume 4, Version 3
Location name: Kahului, Hawaii, USA*
Latitude: 20.8729°, Longitude: -156.4473°
Elevation: 66 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

S. Perica, D. Martin, B. Lin, T. Parzybok, D. Riley, M. Yekta, L. Hiner, L.-C. Chen, D. Brewer, F. Yan, K. Maitaria, C. Trypaluk, G. M. Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.219 (0.189-0.250)	0.293 (0.253-0.342)	0.399 (0.342-0.466)	0.483 (0.409-0.567)	0.601 (0.502-0.713)	0.698 (0.572-0.837)	0.797 (0.641-0.968)	0.905 (0.710-1.12)	1.05 (0.796-1.33)	1.18 (0.860-1.51)
10-min	0.325 (0.280-0.370)	0.434 (0.375-0.507)	0.592 (0.508-0.691)	0.716 (0.607-0.840)	0.891 (0.744-1.06)	1.04 (0.848-1.24)	1.18 (0.950-1.44)	1.34 (1.05-1.66)	1.56 (1.18-1.97)	1.75 (1.28-2.24)
15-min	0.408 (0.352-0.465)	0.545 (0.471-0.637)	0.744 (0.638-0.868)	0.900 (0.762-1.06)	1.12 (0.934-1.33)	1.30 (1.06-1.56)	1.48 (1.19-1.80)	1.68 (1.32-2.08)	1.96 (1.48-2.47)	2.20 (1.60-2.81)
30-min	0.575 (0.496-0.654)	0.768 (0.663-0.896)	1.05 (0.898-1.22)	1.27 (1.07-1.48)	1.57 (1.32-1.87)	1.83 (1.50-2.19)	2.09 (1.68-2.54)	2.37 (1.86-2.92)	2.76 (2.08-3.48)	3.09 (2.25-3.96)
60-min	0.756 (0.652-0.861)	1.01 (0.873-1.18)	1.38 (1.18-1.61)	1.67 (1.41-1.95)	2.07 (1.73-2.46)	2.41 (1.97-2.88)	2.75 (2.21-3.34)	3.12 (2.45-3.85)	3.64 (2.74-4.58)	4.06 (2.96-5.21)
2-hr	1.03 (0.902-1.19)	1.40 (1.21-1.64)	1.92 (1.64-2.24)	2.31 (1.97-2.72)	2.87 (2.40-3.41)	3.31 (2.72-3.97)	3.76 (3.02-4.57)	4.24 (3.33-5.22)	4.90 (3.70-6.17)	5.44 (3.96-6.97)
3-hr	1.16 (1.02-1.34)	1.61 (1.39-1.87)	2.20 (1.89-2.57)	2.66 (2.26-3.13)	3.31 (2.76-3.93)	3.82 (3.13-4.59)	4.35 (3.49-5.28)	4.90 (3.84-6.04)	5.67 (4.27-7.14)	6.29 (4.58-8.06)
6-hr	1.47 (1.28-1.70)	2.01 (1.73-2.35)	2.77 (2.38-3.25)	3.38 (2.87-3.98)	4.21 (3.52-5.02)	4.88 (4.01-5.87)	5.57 (4.48-6.77)	6.30 (4.94-7.77)	7.30 (5.50-9.21)	8.11 (5.90-10.4)
12-hr	1.84 (1.59-2.12)	2.52 (2.16-2.93)	3.48 (2.98-4.07)	4.26 (3.61-5.00)	5.35 (4.46-6.35)	6.23 (5.11-7.48)	7.16 (5.74-8.69)	8.14 (6.37-10.0)	9.52 (7.16-12.0)	10.6 (7.73-13.6)
24-hr	2.28 (1.99-2.62)	3.13 (2.73-3.59)	4.35 (3.79-5.00)	5.34 (4.63-6.15)	6.77 (5.82-7.83)	7.93 (6.76-9.22)	9.17 (7.74-10.7)	10.5 (8.77-12.4)	12.4 (10.2-14.7)	14.0 (11.3-16.7)
2-day	2.79 (2.48-3.16)	3.86 (3.42-4.37)	5.40 (4.78-6.14)	6.67 (5.87-7.60)	8.50 (7.41-9.72)	10.0 (8.65-11.5)	11.6 (9.93-13.4)	13.4 (11.3-15.6)	15.9 (13.2-18.7)	18.0 (14.6-21.3)
3-day	2.95 (2.63-3.34)	4.08 (3.63-4.63)	5.72 (5.06-6.49)	7.06 (6.21-8.04)	8.98 (7.84-10.3)	10.6 (9.13-12.1)	12.3 (10.5-14.2)	14.1 (11.9-16.4)	16.7 (13.8-19.6)	18.9 (15.4-22.4)
4-day	3.12 (2.78-3.53)	4.32 (3.83-4.89)	6.03 (5.34-6.84)	7.45 (6.55-8.48)	9.47 (8.26-10.8)	11.1 (9.62-12.8)	12.9 (11.0-14.9)	14.8 (12.5-17.2)	17.6 (14.5-20.6)	19.8 (16.1-23.4)
7-day	3.52 (3.13-3.98)	4.86 (4.32-5.51)	6.78 (5.99-7.69)	8.32 (7.32-9.47)	10.5 (9.15-12.0)	12.3 (10.6-14.1)	14.1 (12.1-16.3)	16.1 (13.6-18.7)	19.0 (15.7-22.2)	21.3 (17.3-25.1)
10-day	3.86 (3.43-4.37)	5.33 (4.72-6.04)	7.38 (6.52-8.39)	9.04 (7.94-10.3)	11.3 (9.86-13.0)	13.2 (11.4-15.2)	15.1 (12.9-17.4)	17.1 (14.4-19.9)	20.0 (16.5-23.5)	22.3 (18.1-26.3)
20-day	4.87 (4.33-5.52)	6.69 (5.93-7.57)	9.16 (8.10-10.4)	11.1 (9.75-12.6)	13.7 (12.0-15.7)	15.8 (13.6-18.1)	17.9 (15.3-20.7)	20.1 (16.9-23.3)	23.0 (19.0-27.0)	25.3 (20.6-30.0)
30-day	5.63 (5.01-6.37)	7.71 (6.84-8.73)	10.5 (9.33-12.0)	12.7 (11.2-14.5)	15.7 (13.7-18.0)	18.1 (15.6-20.7)	20.4 (17.5-23.6)	22.9 (19.3-26.6)	26.2 (21.7-30.7)	28.8 (23.4-34.0)
45-day	6.88 (6.12-7.78)	9.43 (8.37-10.7)	12.9 (11.4-14.6)	15.5 (13.6-17.6)	19.0 (16.5-21.7)	21.6 (18.7-24.9)	24.3 (20.8-28.1)	27.1 (22.8-31.4)	30.7 (25.4-36.0)	33.5 (27.2-39.6)
60-day	7.74 (6.88-8.76)	10.6 (9.38-12.0)	14.3 (12.7-16.2)	17.1 (15.1-19.5)	20.9 (18.2-23.9)	23.8 (20.5-27.3)	26.6 (22.7-30.7)	29.5 (24.9-34.2)	33.3 (27.5-39.0)	36.1 (29.3-42.7)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

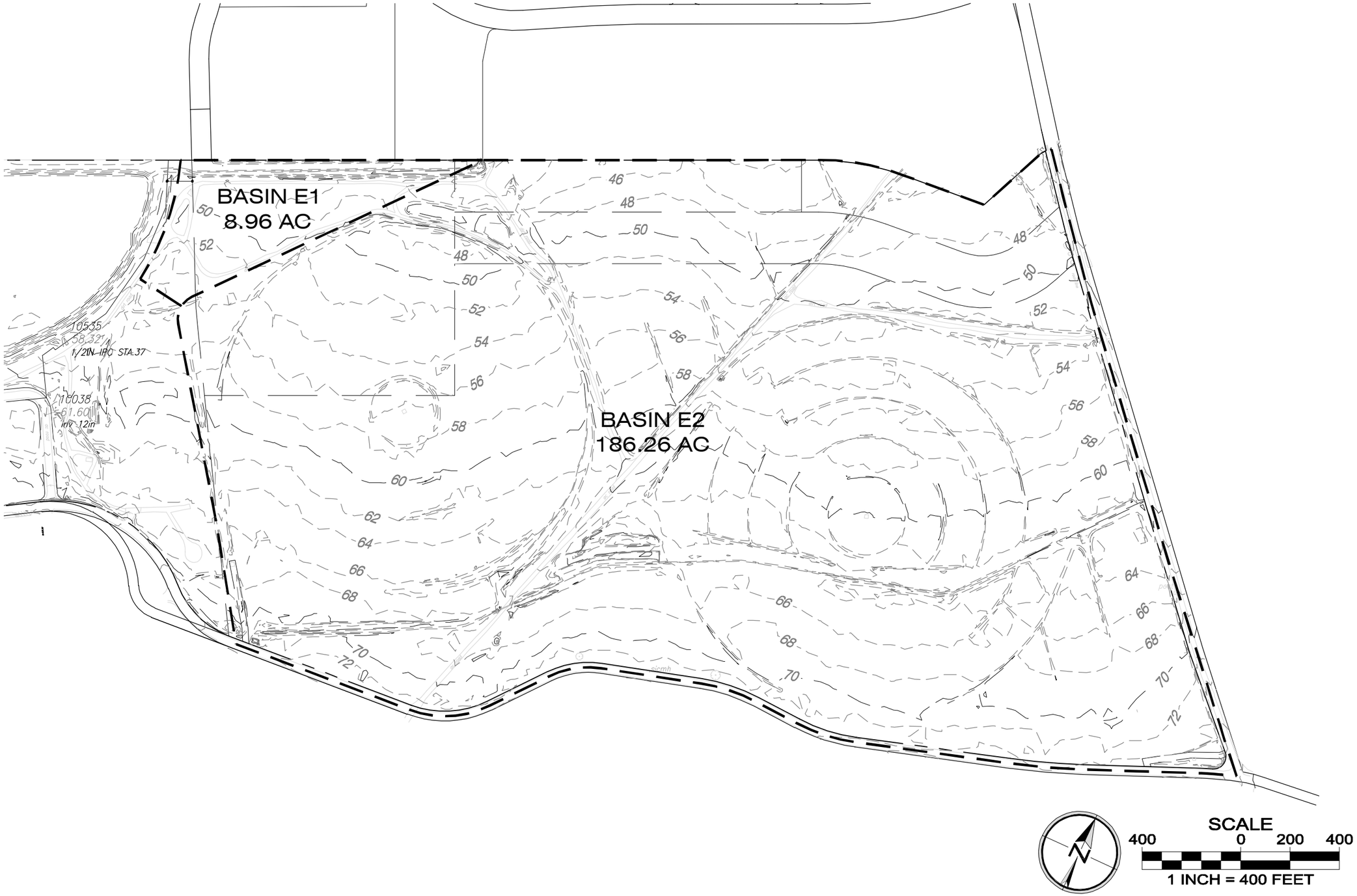
Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical

PRE-DEVELOPED BASIN MAP

HOONANI VILLAGE



PIONEER DESIGN GROUP – HAWAII LLC
CIVIL ENGINEERING · LAND USE PLANNING
CONSTRUCTION MANAGEMENT
HONOLULU, HAWAII PH: 808.400.5959
WWW.PD-GRP.COM

Designed by	ZE	Date 12/2025
Drawn by	ZE	Date 12/2025
Reviewed by	TCC	Date 12/2025
Project No.	H109-001	REF.
Horiz. Scale:	1"=400'	
Vert. Scale:		

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
1 of 1

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PRE-DEVELOPED UPSTREAM BASIN MAP

HOONANI VILLAGE

PIONEER DESIGN GROUP – HAWAII LLC
CIVIL ENGINEERING · LAND USE PLANNING
CONSTRUCTION MANAGEMENT
HONOLULU, HAWAII PH: 808.400.5959
WWW.PD-GRP.COM

Designed by	ZE	Date 12/2025
Drawn by	ZE	Date 12/2025
Reviewed by	TCC	Date 12/2025
Project No.	H109-001	REF.
Horiz. Scale:		
Vert. Scale:		

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
1 of 1

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RUNOFF CURVE NUMBERS (TR55)

Table 2-2a: Runoff curve numbers for urban areas [1]

Cover description		CN for hydrologic soil group			
Cover type and hydrologic condition	Average percent impervious area[2]	A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3]:					
Poor condition (grass cover <50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover >75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation) [5]	77	86	91	94	
Idle lands (CNs are determined using cover types similar to those in table 2-2c)					

1: Average runoff condition, and $I_a = 0.2S$.

2: The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas hava a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

3: CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

4: Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

5: Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

RUNOFF CURVE NUMBERS (TR55)

Table 2-2c: Runoff curve numbers for other agricultural lands [1]

Cover description		Curve numbers for hydrologic soil group			
Cover type	Hydrologic condition	A	B	C	D
Pasture, grassland, or range -- continuous forage for grazing					
<50% ground cover or heavily grazed with no mulch.	Poor	68	79	86	89
50% to 75% ground cover and not heavily grazed.	Fair	49	69	79	84
>75% ground cover and lightly or only occasionally grazed.	Good	39	61	74	80
Meadow -- continuous grass, protected from grazing and generally mowed for hay	--	30	58	71	78
Brush – weed-grass mixture with brush as the major element					
<50% ground cover	Poor	48	67	77	83
50% to 75% ground cover	Fair	35	56	70	77
>75% ground cover	Good	30 [2]	48	65	73
Woods – grass combination (orchard or tree farm) [3]	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods					
Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.	Poor	45	66	77	83
Woods are grazed but not burned, and some forest litter covers the soil.	Fair	36	60	73	79
Woods are protected from grazing, and litter and brush adequately cover the soil.	Good	30 [2]	55	70	77
Farmsteads -- buildings, lanes, driveways, and surrounding lots	--	59	74	82	86

1: Average runoff condition, and $I_a = 0.2S$.

2: Actual curve number is less than 30; use CN = 30 for runoff computations.

3: CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

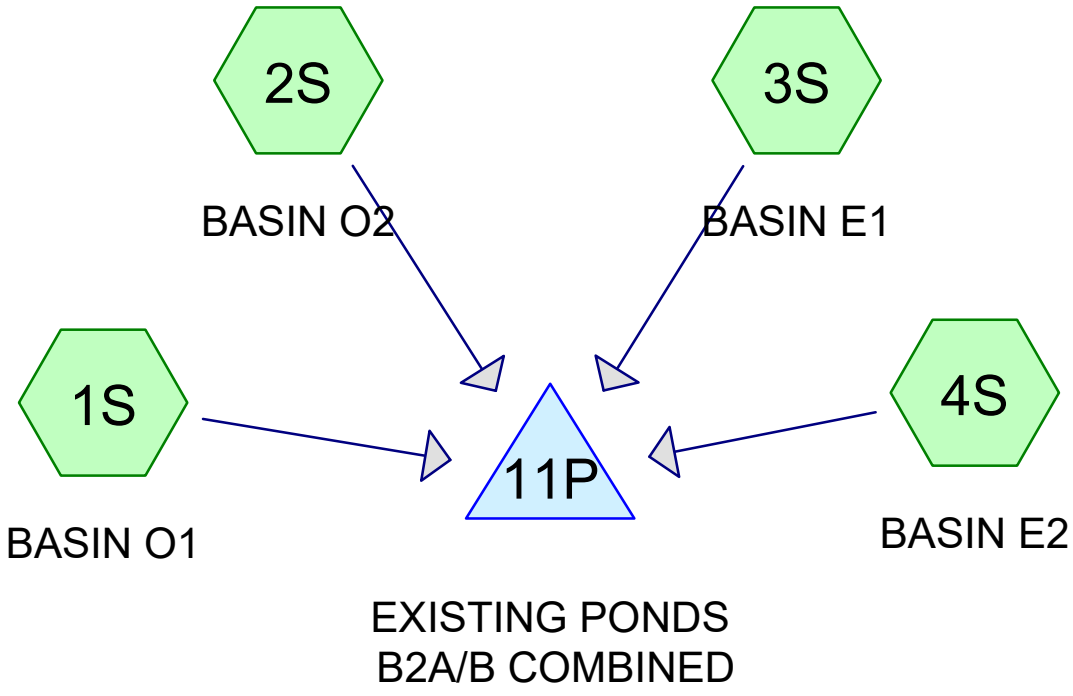
PREDEVELOPED BASIN & DISCHARGE POINT ANALYSIS
(100 YEAR, 24 HR STORM EVENT)

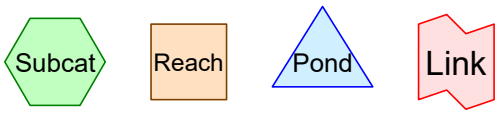
JOB NUMBER: H109-001
PROJECT: Hoonani Village
FILE: H1091_PER Hydro

FLOW RATE (Q) CALCULATED IN HYDROCAD (SEE ATTACHED HYDROCAD REPORT)

PRE-DEVELOPED ON-SITE ANALYSIS					
DISCHARGE POINT #	**BASIN LABEL**	**BASIN AREA (AC)**	**PREDEVELOPED FLOW RATE (CFS)**	**PREDEVELOPED VOL. (AC-FT)**	**TYPE OF FLOW**
BASIN B-2A & B-2B	E1	8.963	15.55	2.98	Sheet flow to existing drainage ditch.
BASIN B-2A & B-2B	E2	186.263	115.93	61.85	Sheet flow from south to north to drainage basin B-2A and B-2B.
	ALL BASINS ON SITE	**195.226**	**131.48**	**64.83**	
PRE-DEVELOPED UPSTREAM BASIN ANALYSIS					
DISCHARGE POINT #	**BASIN LABEL**	**BASIN AREA (AC)**	**PREDEVELOPED FLOW RATE (CFS)**	**PREDEVELOPED VOL. (AC-FT)**	**TYPE OF FLOW**
HANSEN ROAD	O1	141.426	88.02	46.96	Upstream sheet flow towards Hansen Road. Flow to be collected in new storm system on Hansen Road and conveyed to a detention pond.
BASIN B-2A & B-2B	O2	7.326	9.59	2.66	Upstream sheet flow towards Pulehu Road. Flow to be collected in an area drain along Pulehu Road and discharged by a pipe into a detention pond, B2B.
	UPSTREAM BASINS	**148.753**	**97.61**	**49.62**	

PRE-DEVELOPED EXISTING & DESIGNED DETENTION BASIN ANALYSIS					
BASIN LABEL	**CONTRIBUTING BASINS**	**AVAILABLE STORAGE (AC-FT)**	**PREDEVELOPED FLOW RATE (CFS)**	**PREDEVELOPED VOL. (AC-FT)**	**AVAILABLE VOLUME (AC-FT)**
BASIN B-2A & B-2B	O1, O2, E1-2	**100.160**	**229.09**	**114.45**	-14.29





Routing Diagram for PRELIM PREDEVELOPED HYDRO
Prepared by Pioneer Design Group, Printed 12/24/2025
HydroCAD® 10.20-7a s/n 09255 © 2025 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
343.415	58	Meadow, non-grazed, HSG B (1S, 2S, 3S, 4S)
0.563	98	Paved roads w/curbs & sewers, HSG B (2S)
343.978	**58**	**TOTAL AREA**

Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: BASIN O1 Runoff Area=141.426 ac 0.00% Impervious Runoff Depth=3.98"
Tc=153.7 min CN=58 Runoff=88.02 cfs 46.963 af

Subcatchment 2S: BASIN O2 Runoff Area=7.326 ac 7.68% Impervious Runoff Depth=4.36"
Tc=56.5 min CN=61 Runoff=9.59 cfs 2.661 af

Subcatchment 3S: BASIN E1 Runoff Area=8.963 ac 0.00% Impervious Runoff Depth=3.98"
Tc=28.4 min CN=58 Runoff=15.55 cfs 2.976 af

Subcatchment 4S: BASIN E2 Runoff Area=186.263 ac 0.00% Impervious Runoff Depth=3.98"
Tc=153.7 min CN=58 Runoff=115.93 cfs 61.852 af

Pond 11P: EXISTING PONDS B2A/B Peak Elev=44.95' Storage=90.992 af Inflow=210.19 cfs 114.452 af
Outflow=48.58 cfs 31.477 af

Total Runoff Area = 343.978 ac Runoff Volume = 114.452 af Average Runoff Depth = 3.99"
99.84% Pervious = 343.415 ac 0.16% Impervious = 0.563 ac

Summary for Subcatchment 1S: BASIN O1

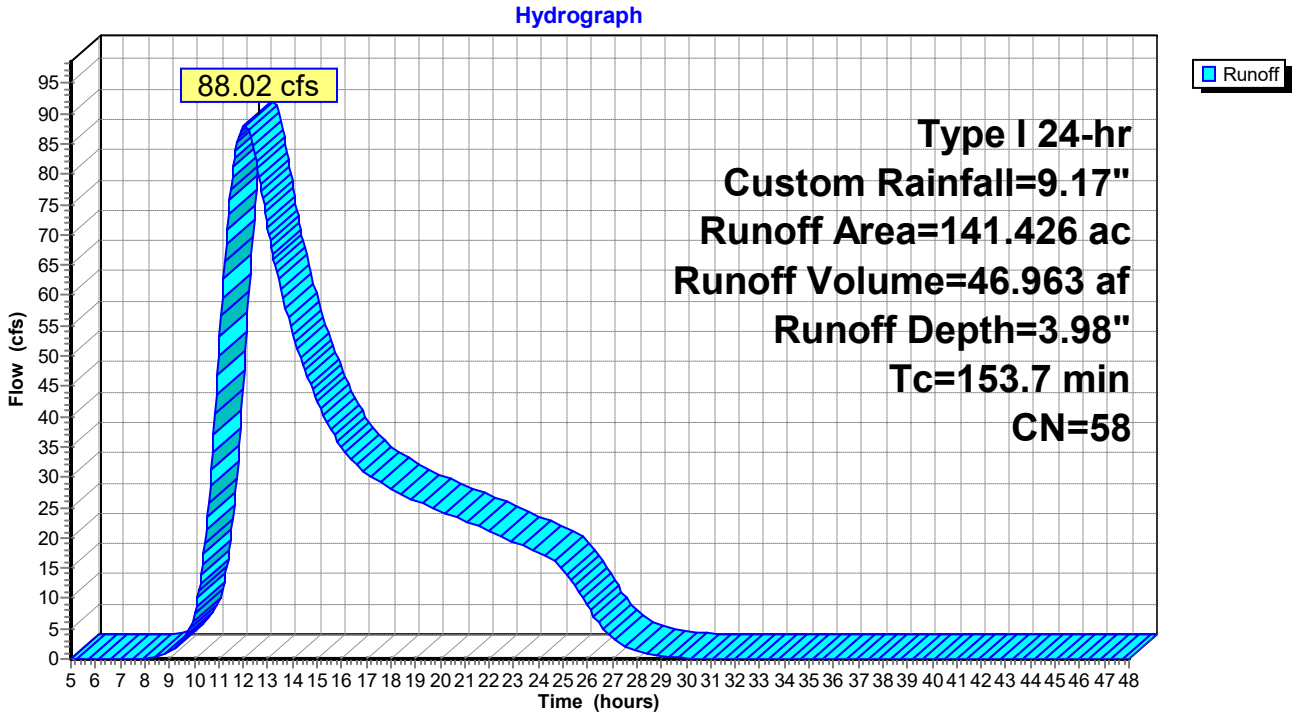
Runoff = 88.02 cfs @ 12.10 hrs, Volume= 46.963 af, Depth= 3.98"
Routed to Pond 11P : EXISTING PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

Area (ac)	CN	Description
141.426	58	Meadow, non-grazed, HSG B
141.426		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
153.7					**Direct Entry, PREDEV TOC**

Subcatchment 1S: BASIN O1



Summary for Subcatchment 2S: BASIN O2

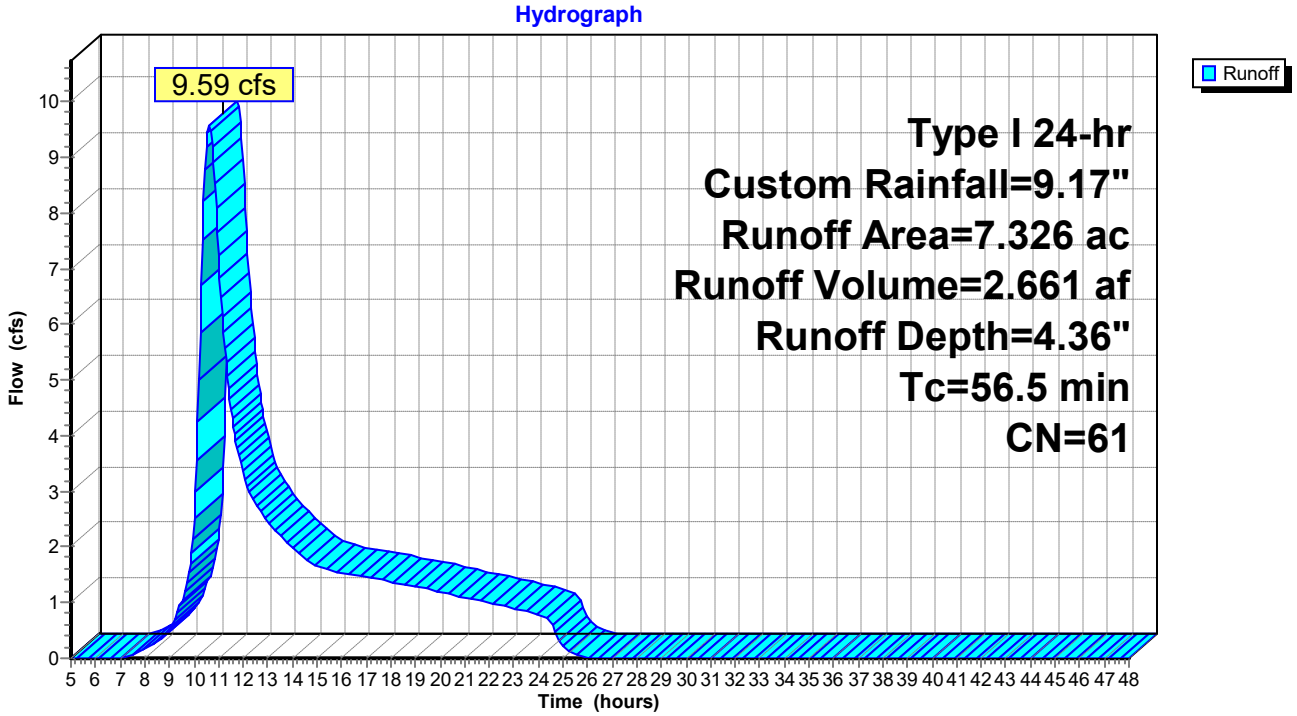
Runoff = 9.59 cfs @ 10.62 hrs, Volume= 2.661 af, Depth= 4.36"
Routed to Pond 11P : EXISTING PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

Area (ac)	CN	Description
0.563	98	Paved roads w/curbs & sewers, HSG B
6.763	58	Meadow, non-grazed, HSG B
7.326	61	Weighted Average
6.763		92.32% Pervious Area
0.563		7.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.5					**Direct Entry,**

Subcatchment 2S: BASIN O2



Summary for Subcatchment 3S: BASIN E1

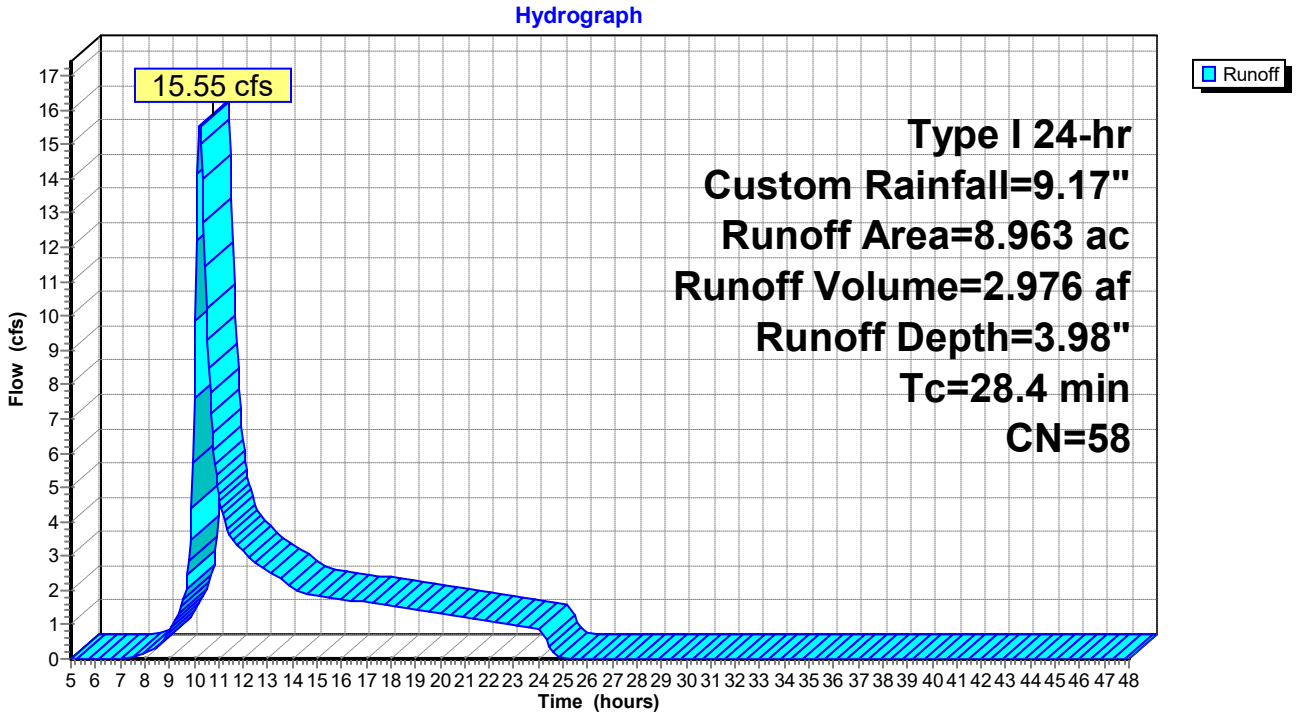
Runoff = 15.55 cfs @ 10.24 hrs, Volume= 2.976 af, Depth= 3.98"
Routed to Pond 11P : EXISTING PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

Area (ac)	CN	Description
8.963	58	Meadow, non-grazed, HSG B
8.963		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.4					**Direct Entry,**

Subcatchment 3S: BASIN E1



Summary for Subcatchment 4S: BASIN E2

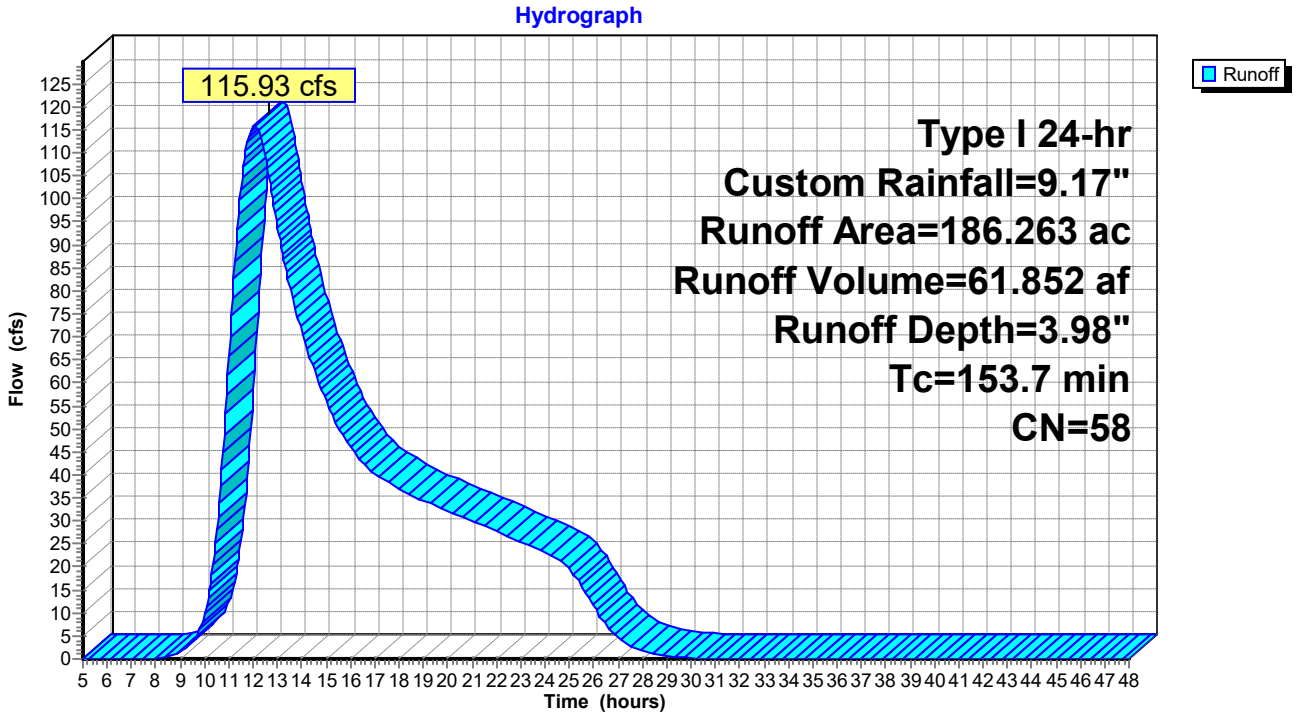
Runoff = 115.93 cfs @ 12.10 hrs, Volume= 61.852 af, Depth= 3.98"
Routed to Pond 11P : EXISTING PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

Area (ac)	CN	Description
186.263	58	Meadow, non-grazed, HSG B
186.263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
153.7					**Direct Entry,**

Subcatchment 4S: BASIN E2



Summary for Pond 11P: EXISTING PONDS B2A/B COMBINED

Inflow Area = 343.978 ac, 0.16% Impervious, Inflow Depth = 3.99" for Custom event
Inflow = 210.19 cfs @ 12.09 hrs, Volume= 114.452 af
Outflow = 48.58 cfs @ 22.55 hrs, Volume= 31.477 af, Atten= 77%, Lag= 627.3 min
Primary = 48.58 cfs @ 22.55 hrs, Volume= 31.477 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 44.95' @ 22.55 hrs Surf.Area= 8.608 ac Storage= 90.992 af

Plug-Flow detention time= 774.1 min calculated for 31.441 af (27% of inflow)
Center-of-Mass det. time= 507.6 min (1,466.8 - 959.2)

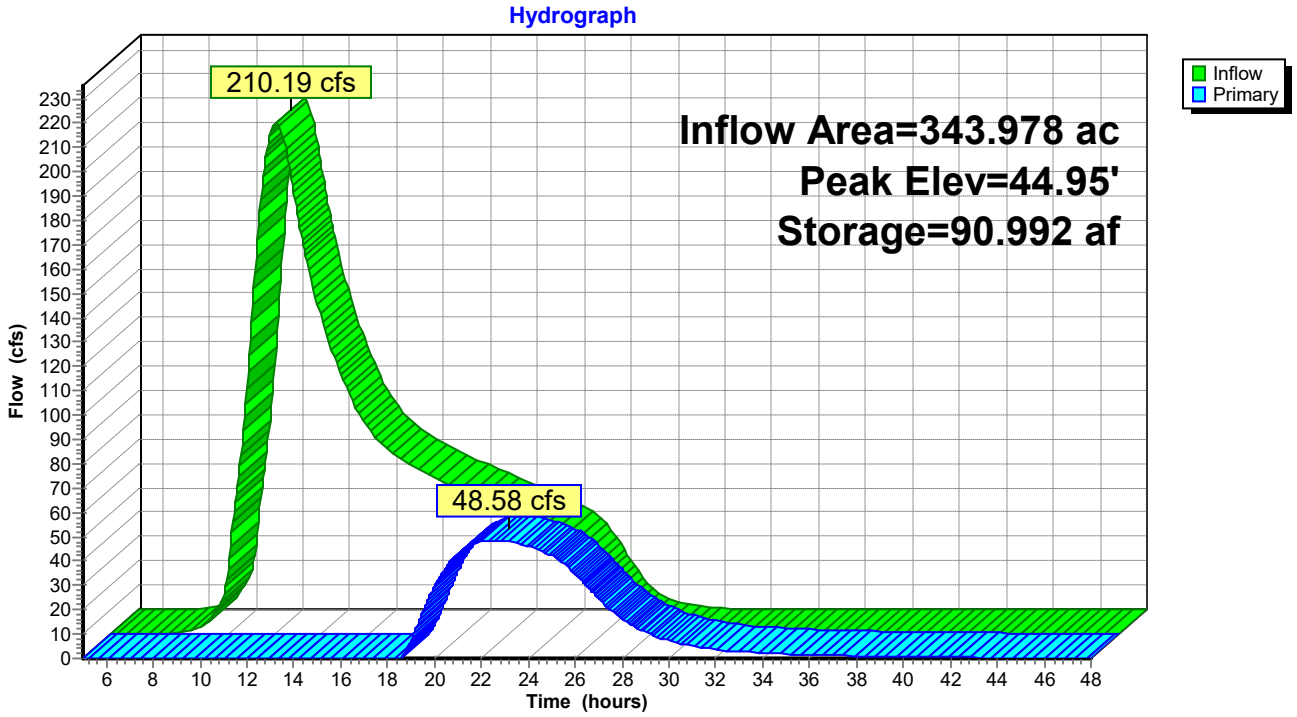
Volume	Invert	Avail.Storage	Storage Description
#1	32.00'	109.140 af	**Custom Stage Data (Pyramidal)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
32.00	5.063	0.000	0.000	5.063
34.00	6.001	11.051	11.051	6.005
36.00	6.472	12.470	23.521	6.486
38.00	6.949	13.418	36.939	6.973
40.00	7.425	14.371	51.310	7.460
42.00	7.903	15.326	66.636	7.950
44.00	8.382	16.283	82.918	8.441
46.00	8.862	17.242	100.160	8.934
47.00	9.099	8.980	109.140	9.178

Device	Routing	Invert	Outlet Devices
#1	Primary	35.00'	**42.0" Round Culvert** L= 71.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.00' / 33.20' S= 0.0252 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 9.62 sf
#2	Device 1	44.00'	**48.0" x 48.0" Horiz. Overflow Area Drain** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=48.48 cfs @ 22.55 hrs HW=44.95' (Free Discharge)
└─**1=Culvert** (Passes 48.48 cfs of 104.73 cfs potential flow)
  └─**2=Overflow Area Drain** (Weir Controls 48.48 cfs @ 3.19 fps)

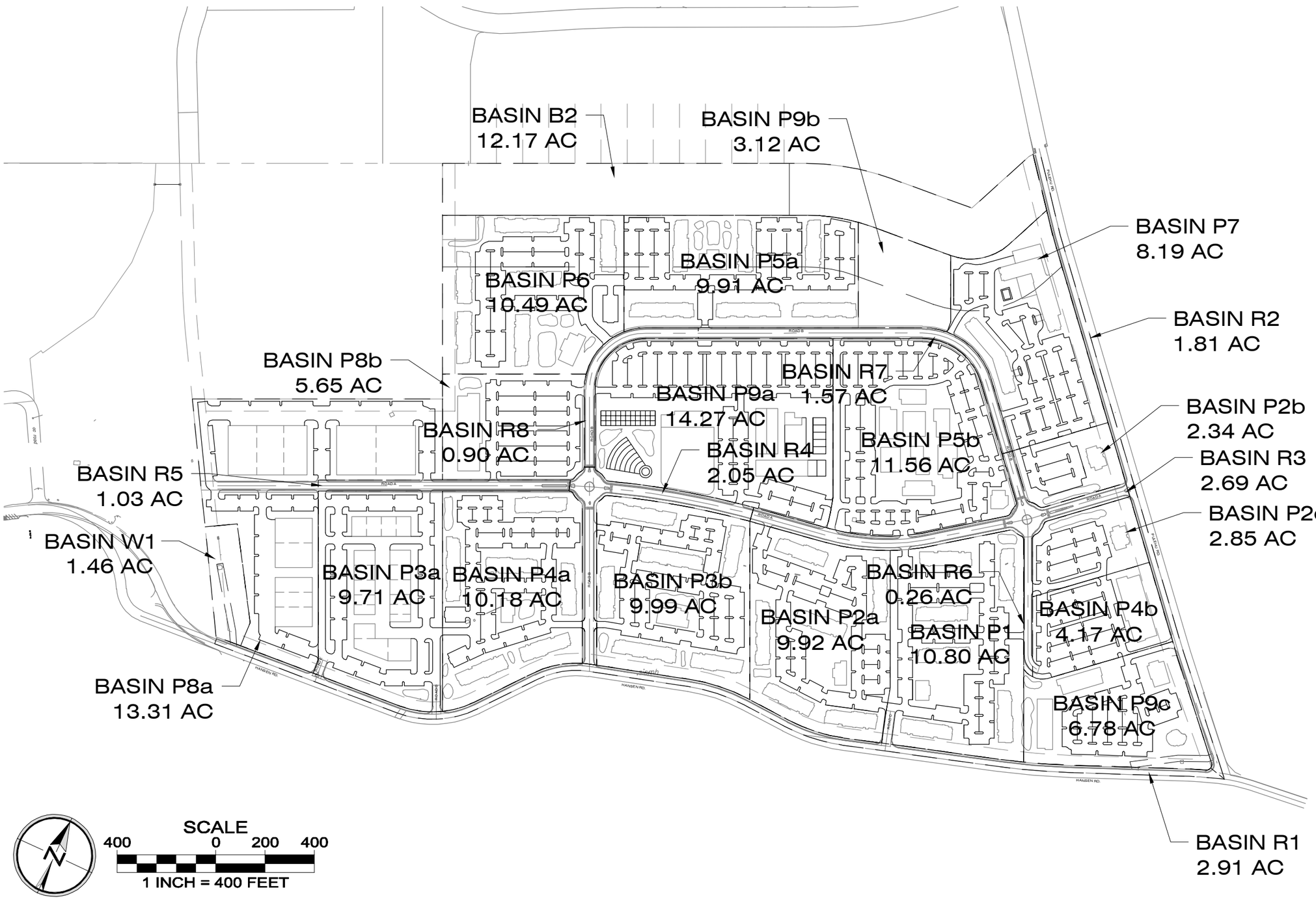
Pond 11P: EXISTING PONDS B2A/B COMBINED



APPENDIX 'C' – DEVELOPED CONDITION DRAINAGE ANALYSIS

DEVELOPED BASIN MAP

HOONANI VILLAGE



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PRELIMINARY STORM DRAINAGE MASTER PLAN

OVERALL MASTER PLAN

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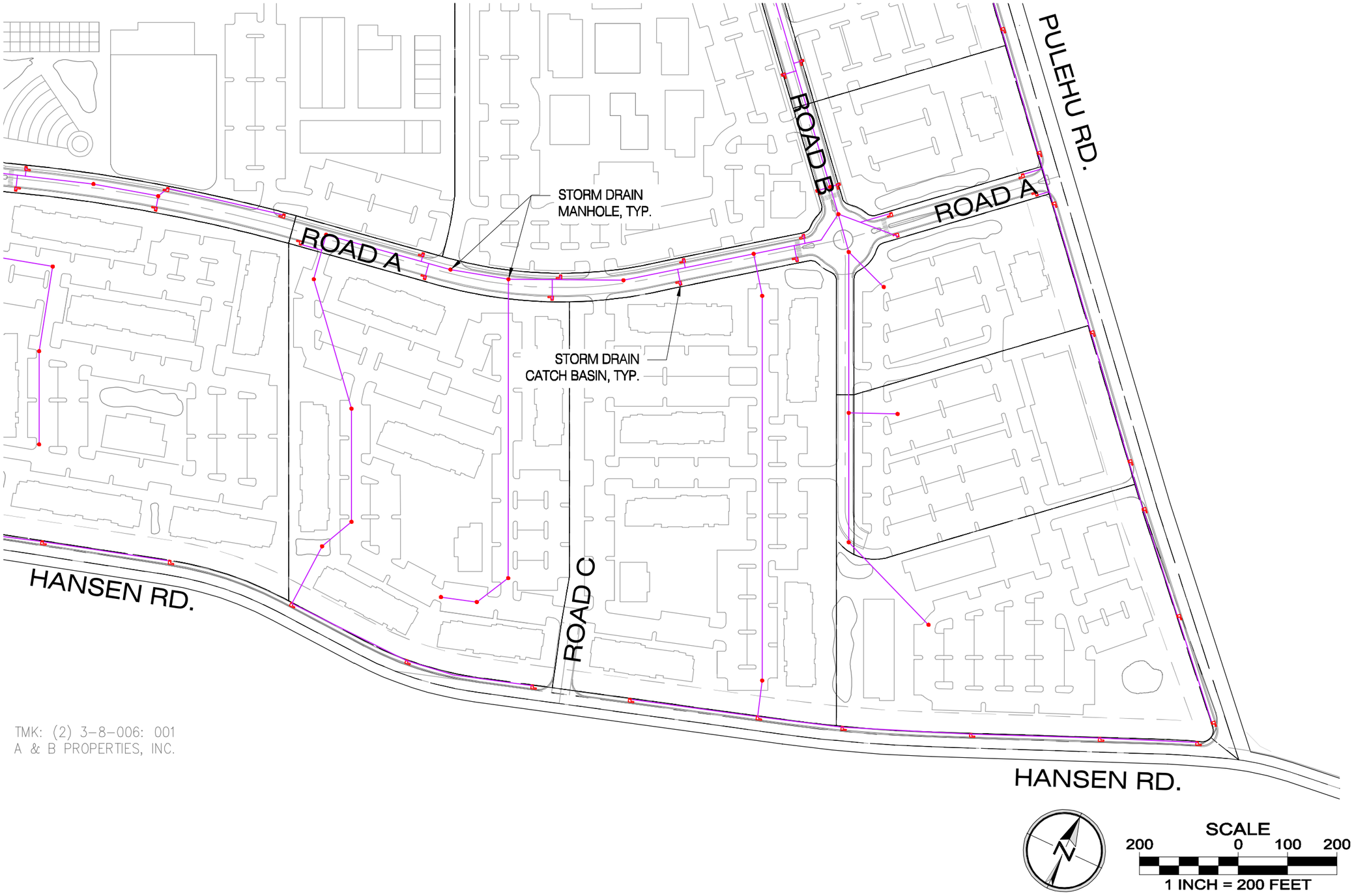
SOUTHEAST



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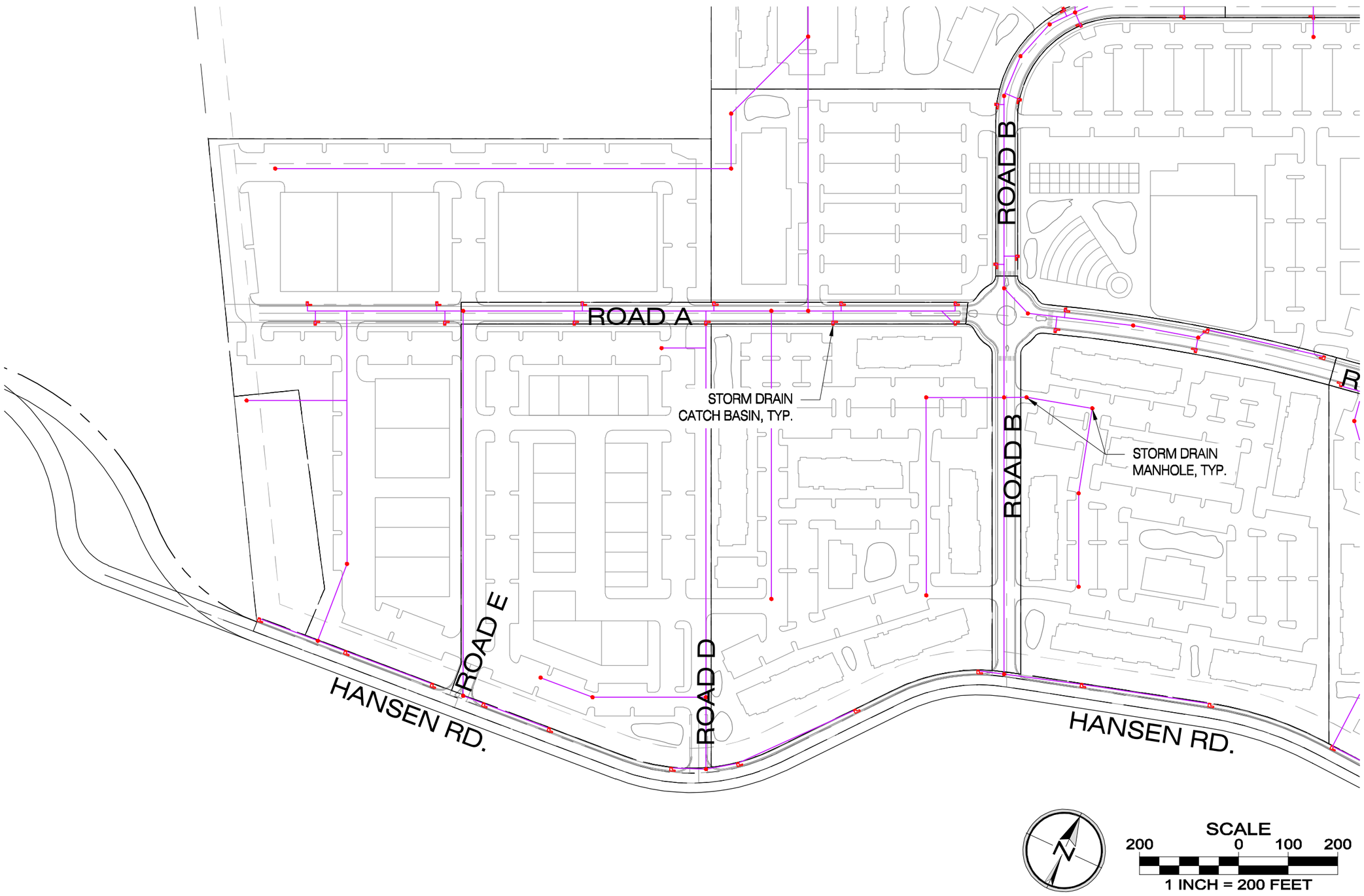
SOUTHWEST



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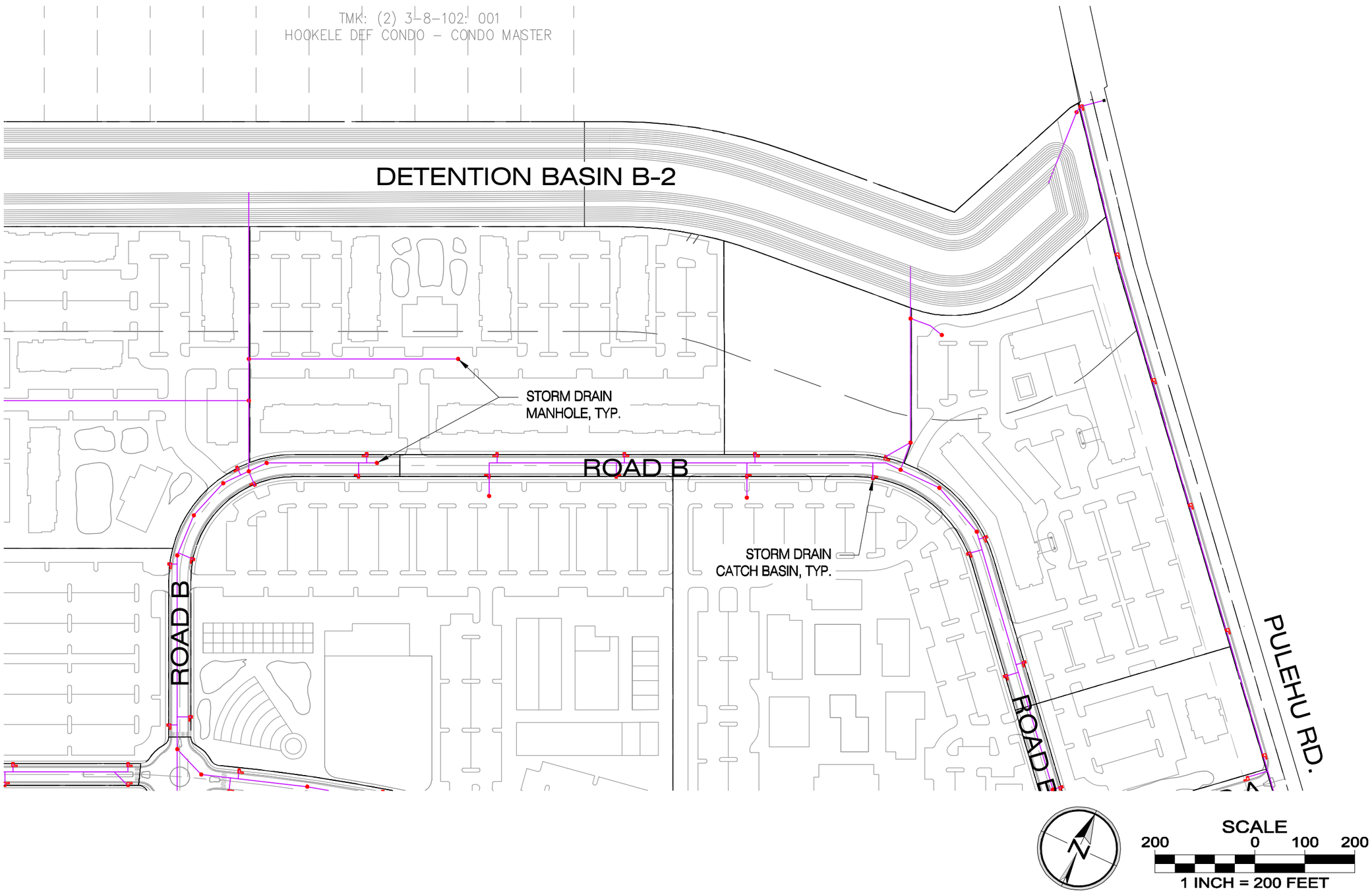
PRELIMINARY STORM DRAINAGE MASTER PLAN

NORTHEAST



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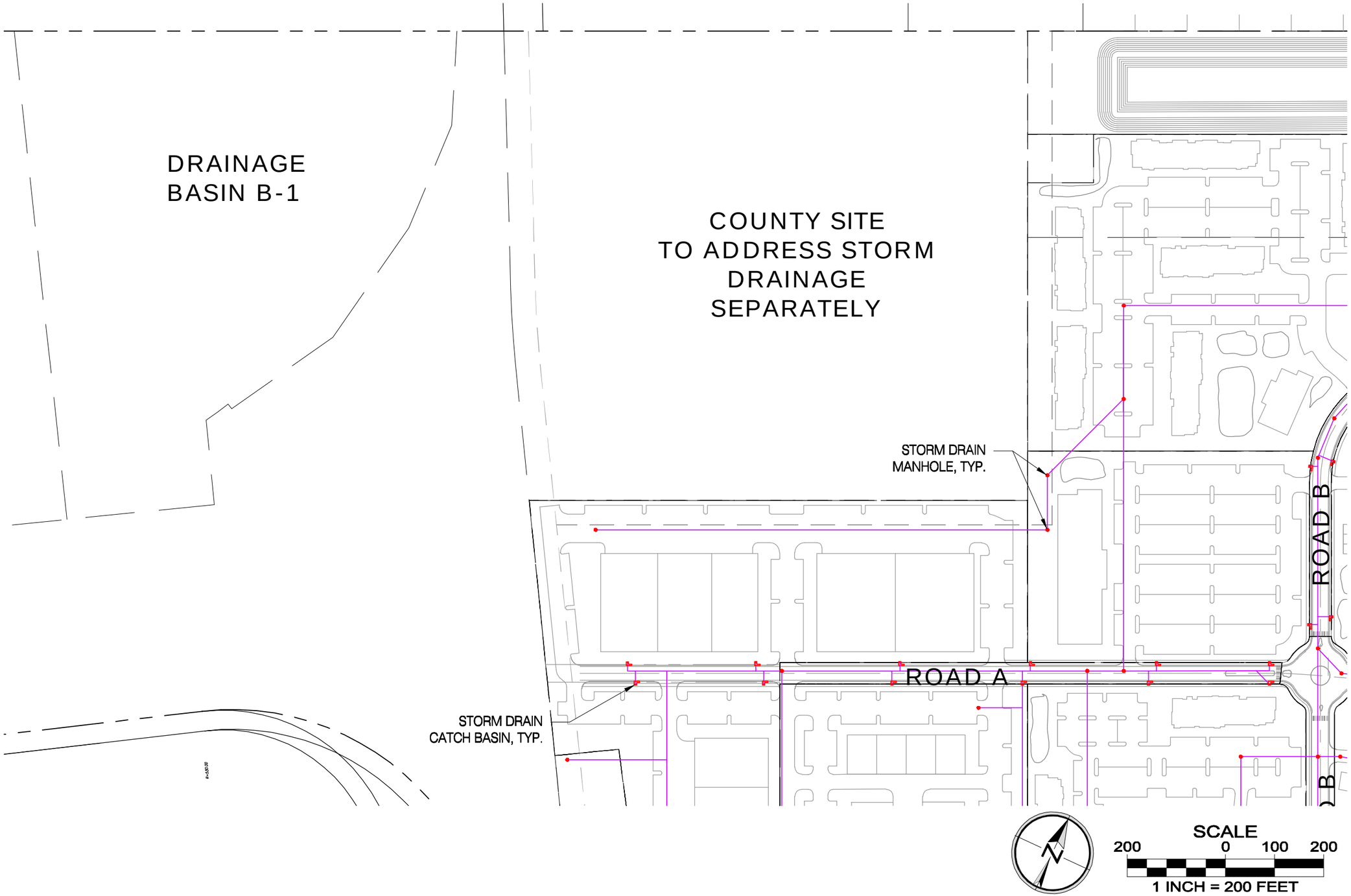
NORTHWEST



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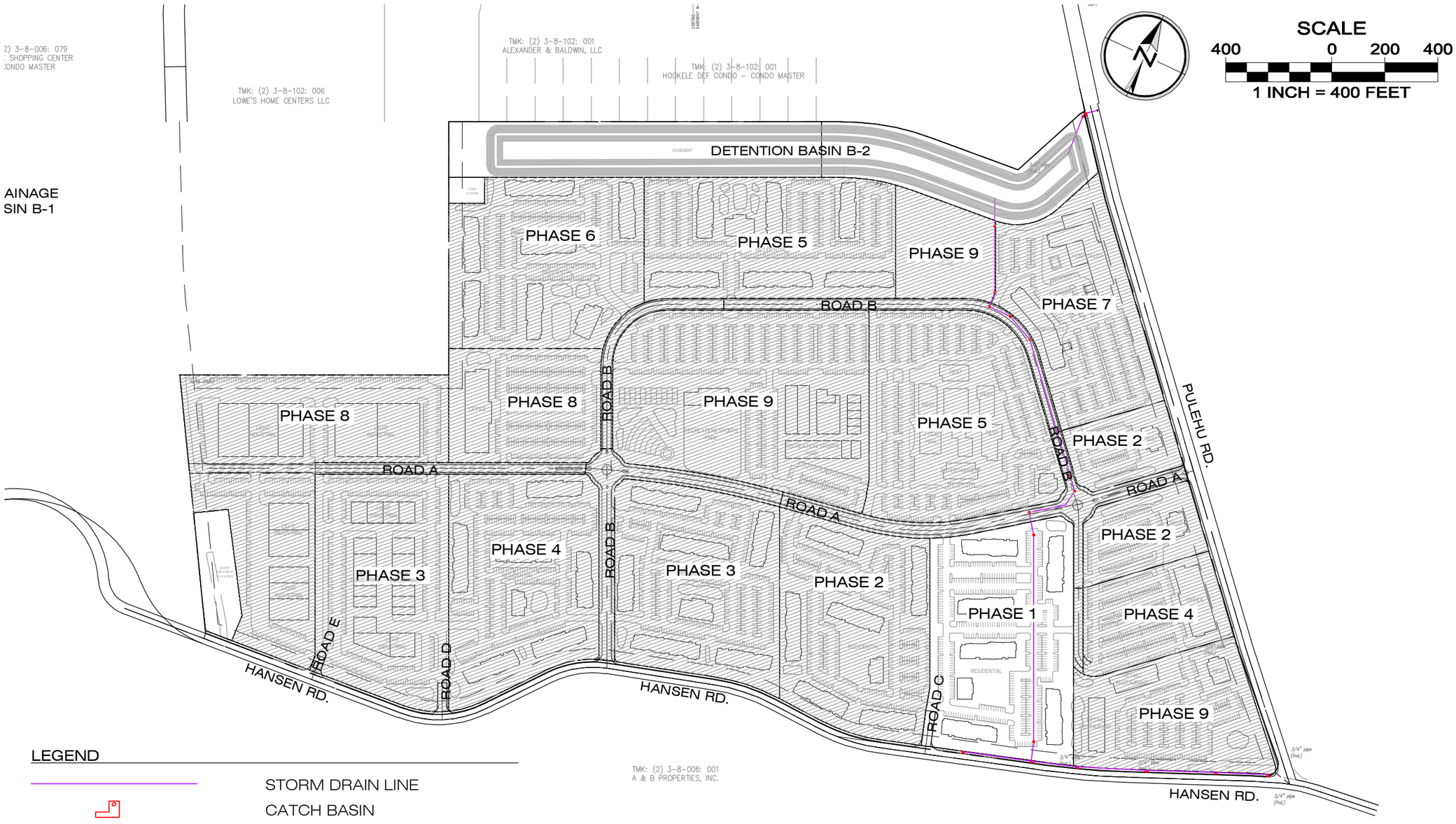
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 1



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PRELIM STORM DRAINAGE PH 1

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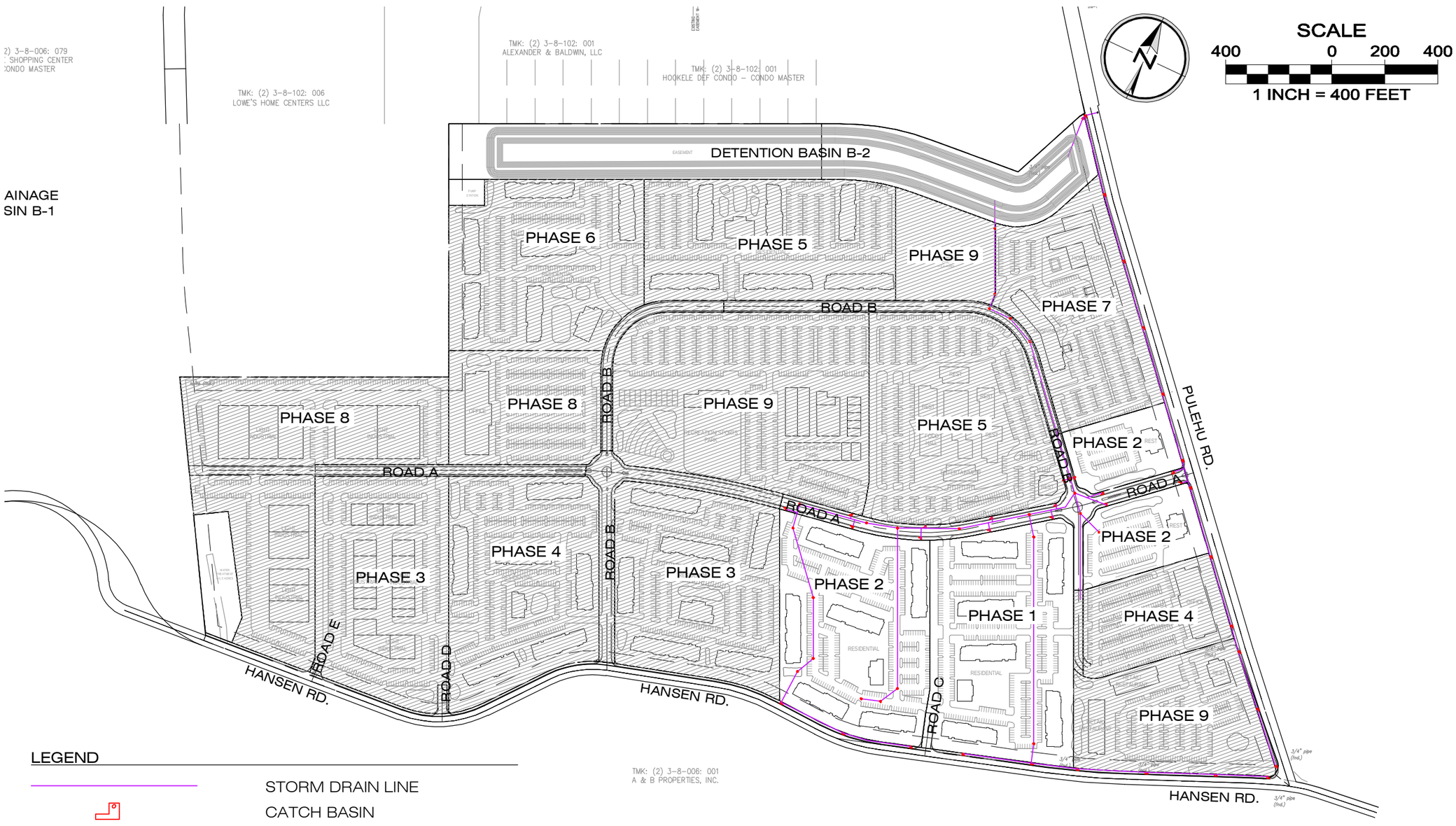
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 2



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PRELIM STORM DRAINAGE PH2

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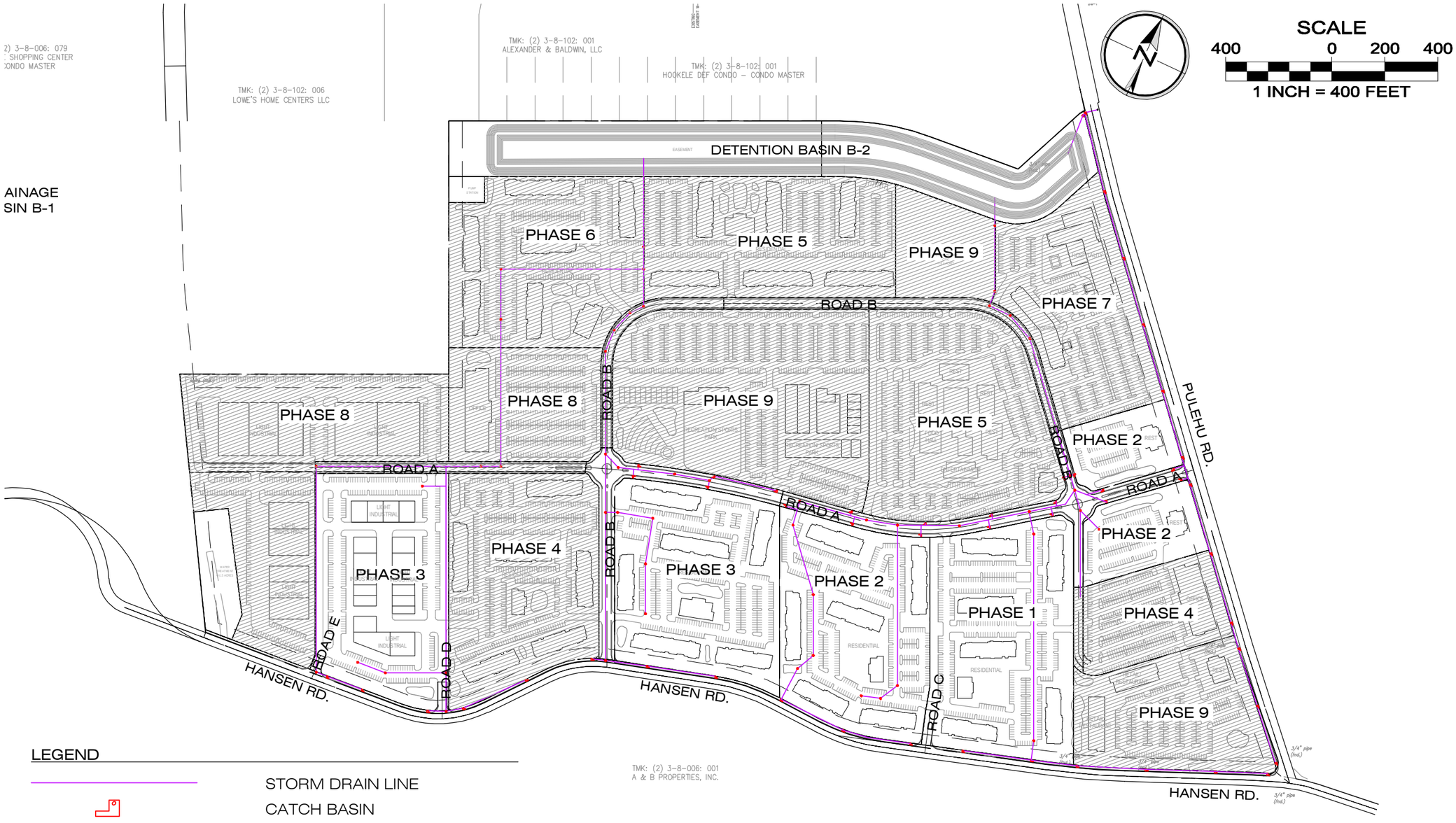
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 3



LEGEND

STORM DRAIN LINE

CATCH BASIN

STORM DRAIN MANHOLE

FUTURE PHASES TO BE BUILT

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PRELIM STORM DRAINAGE PH 3

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HOONANI VILLAGE

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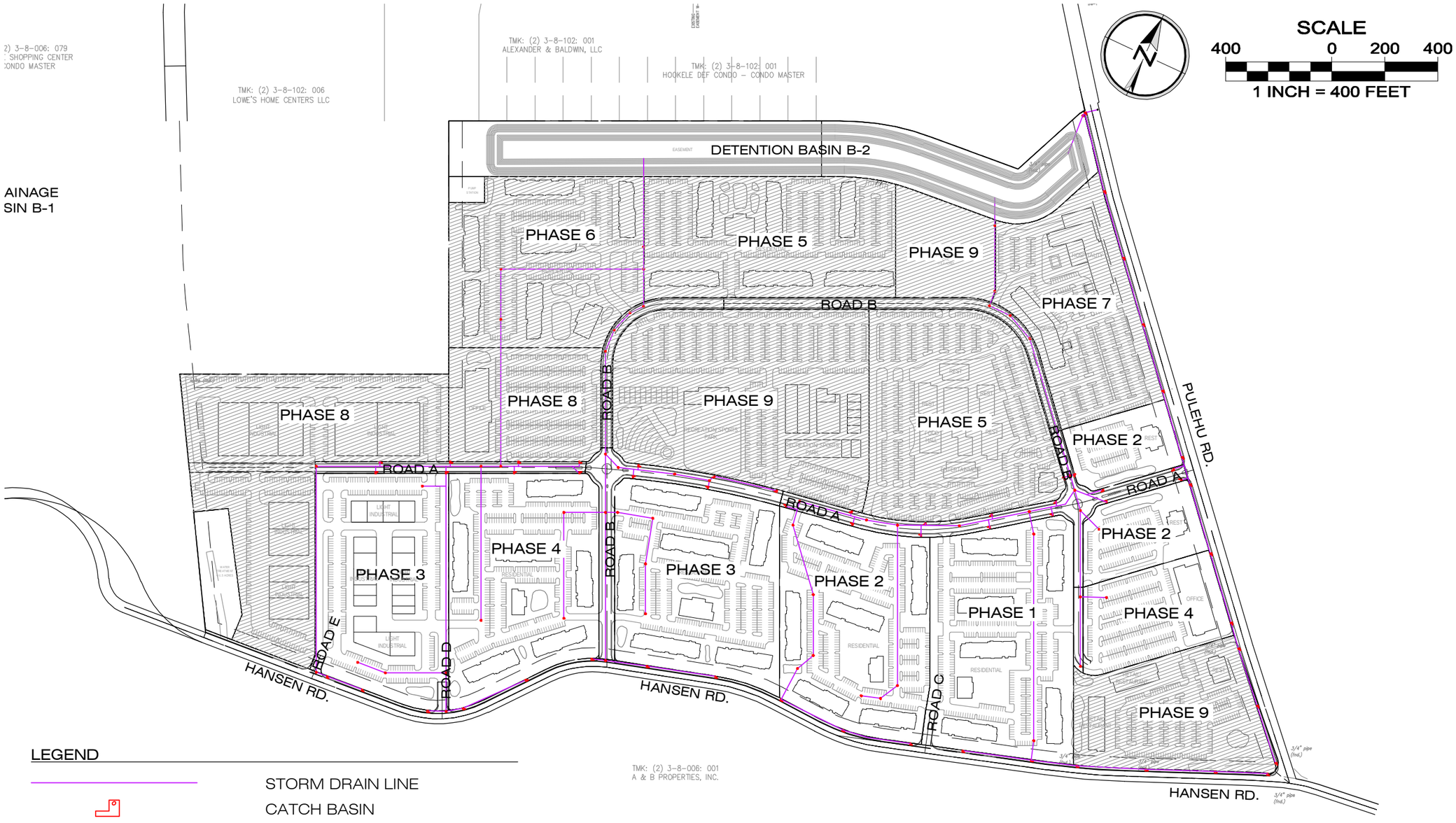
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 4



LEGEND

STORM DRAIN LINE

CATCH BASIN

STORM DRAIN MANHOLE

FUTURE PHASES TO BE BUILT

PIONEER DESIGN GROUP – HAWAII LLC
CIVIL ENGINEERING · LAND USE PLANNING
CONSTRUCTION MANAGEMENT
HONOLULU, HAWAII PH: 808.400.5959
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Designed by	ZE	Date	12/2025
Drawn by	ZE	Date	12/2025
Reviewed by	TCC	Date	12/2025
Project No.	H109-001	REF.	
Horiz. Scale:	1" = 400'		
Vert. Scale:	N/A		

PRELIM STORM DRAINAGE PH 4

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
4 of 9

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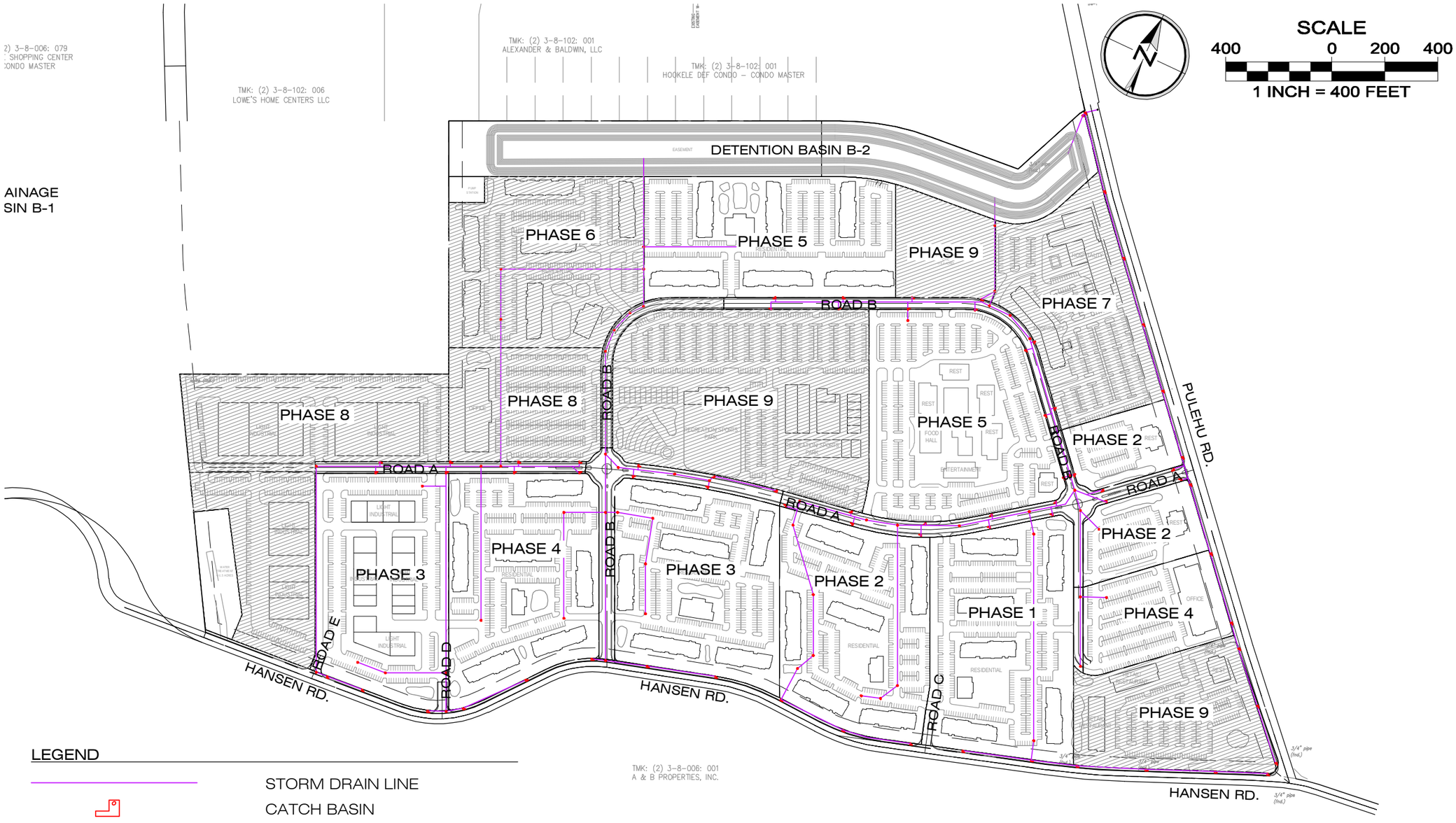
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 5



LEGEND

STORM DRAIN LINE

CATCH BASIN

STORM DRAIN MANHOLE

FUTURE PHASES TO BE BUILT

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Vert. Scale:	N/A		

PRELIM STORM DRAINAGE PH 5

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
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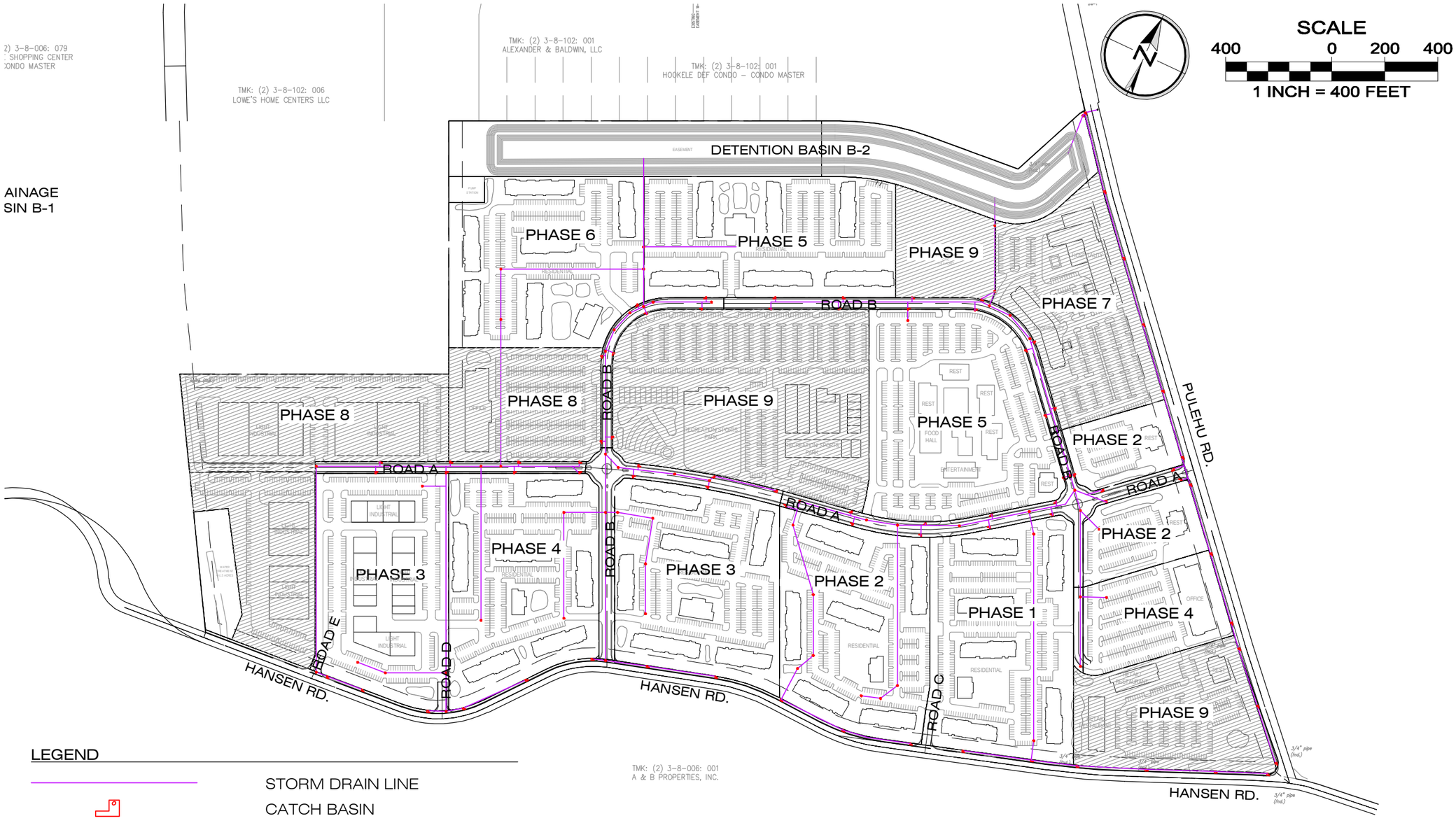
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 6



LEGEND

STORM DRAIN LINE

CATCH BASIN

STORM DRAIN MANHOLE

FUTURE PHASES TO BE BUILT

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Horiz. Scale:	1" = 400'		
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PRELIM STORM DRAINAGE PH 6

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
6 of 9

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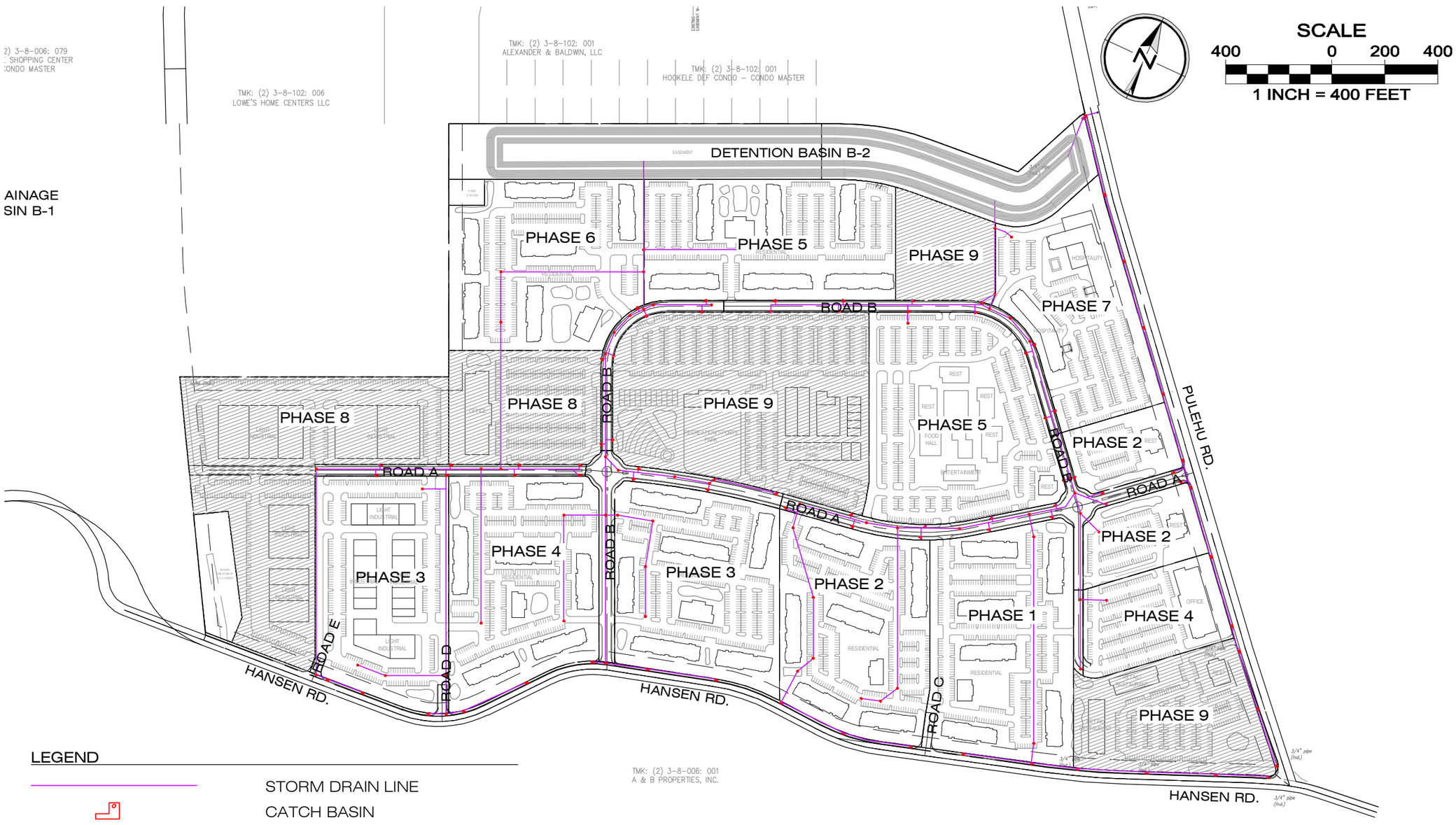
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 7



LEGEND

STORM DRAIN LINE

CATCH BASIN

STORM DRAIN MANHOLE

FUTURE PHASES TO BE BUILT

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Drawn by	ZE	**Date**	12/2025
Reviewed by	TCC	**Date**	12/2025
Project No.	H109-001	**REF.**	
Horiz. Scale:	1" = 400'		
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PRELIM STORM DRAINAGE PH 7

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
7 of **9**

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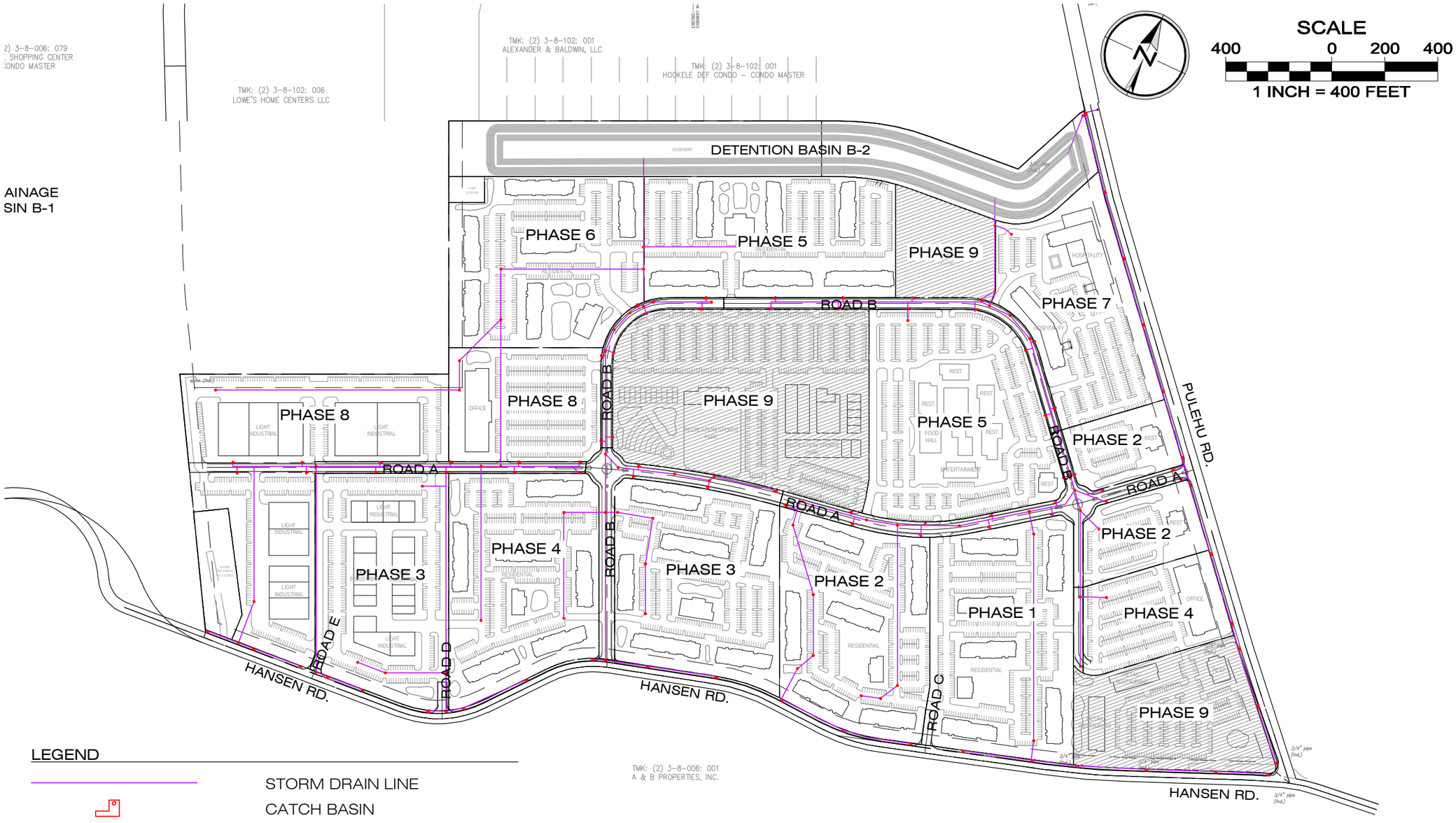
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 8



LEGEND

STORM DRAIN LINE

CATCH BASIN

STORM DRAIN MANHOLE

FUTURE PHASES TO BE BUILT

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Drawn by	ZE	Date	12/2025
Reviewed by	TCC	Date	12/2025
Project No.	H109-001	REF.	
Horiz. Scale:	1" = 400'		
Vert. Scale:	N/A		

PRELIM STORM DRAINAGE PH 8

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
8 of 9

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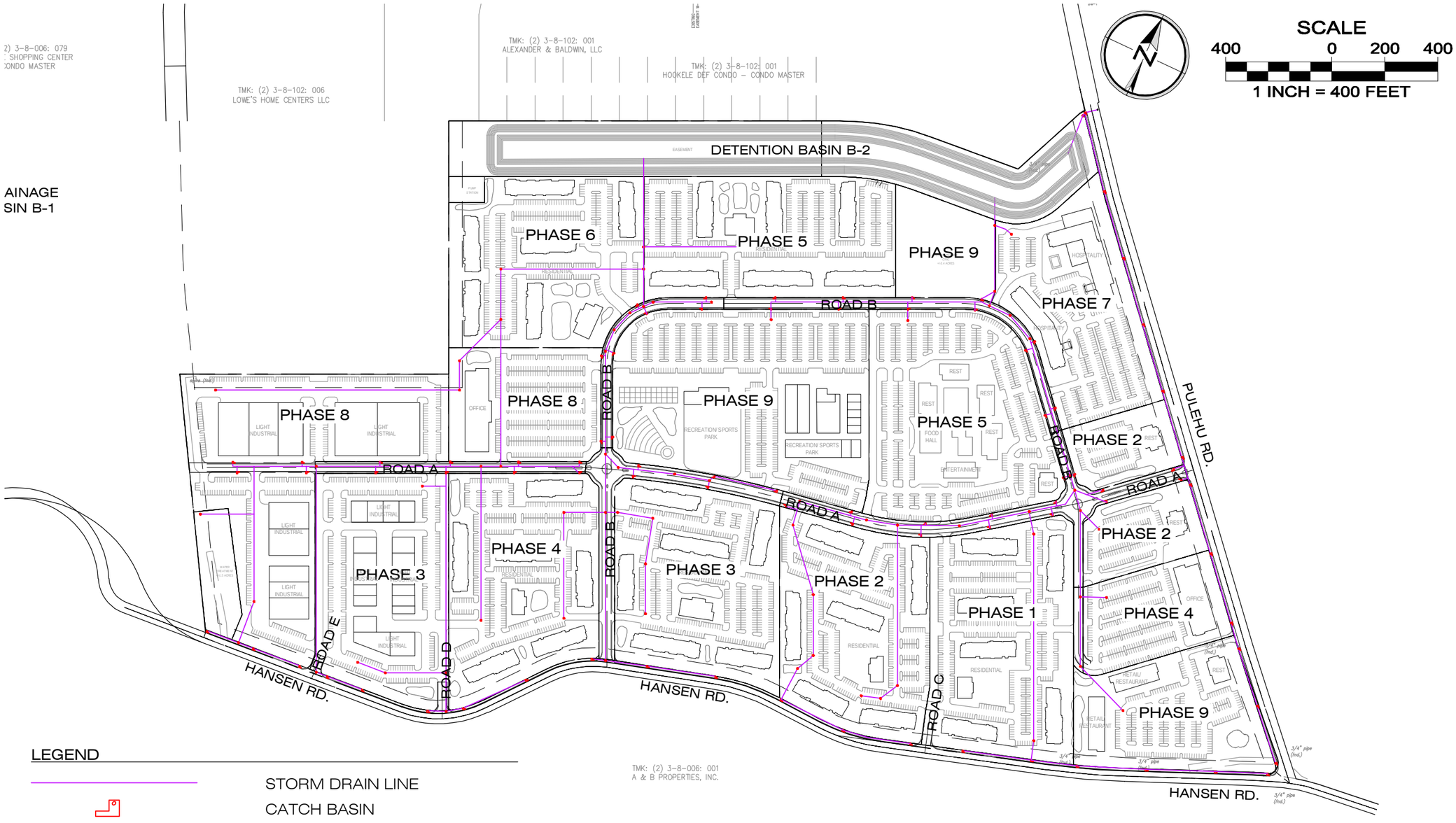
PRELIMINARY STORM DRAINAGE MASTER PLAN

PHASE 9



LEGEND

STORM DRAIN LINE

CATCH BASIN

STORM DRAIN MANHOLE

FUTURE PHASES TO BE BUILT

PIONEER DESIGN GROUP – HAWAII LLC
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Vert. Scale:	N/A		

PRELIM STORM DRAINAGE PH 9

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
9 of 9

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PROPOSED DRAINAGE CONDITION ANALYSIS

(100 YEAR, 24 HOUR STORM EVENT)

JOB NUMBER: H109-001
PROJECT: Hoonani Village
FILE: H1091_Prelim Hydro

RUNOFF CURVE NUMBERS

IMPERVIOUS AREAS (B SOILS) = 98
OPEN SPACES (B SOILS) = 61

RESIDENTIAL APARTMENT = 65% IMPERVIOUS
LIGHT INDUSTRIAL & BUSINESS AREA = 85% IMPERVIOUS
COMMERCIAL AREA = 75% IMPERVIOUS

TIME OF CONCENTRATION (MIN.) = 5 min. + Time in Pipe (min.)

CATCHMENT TIME 5 min.
VELOCITY IN PIPE 3 ft/s
TIME IN PIPE LENGTH / VEL. s

FLOW RATE (Q) CALCULATED IN HYDROCAD (SEE ATTACHED HYDROCAD REPORT)

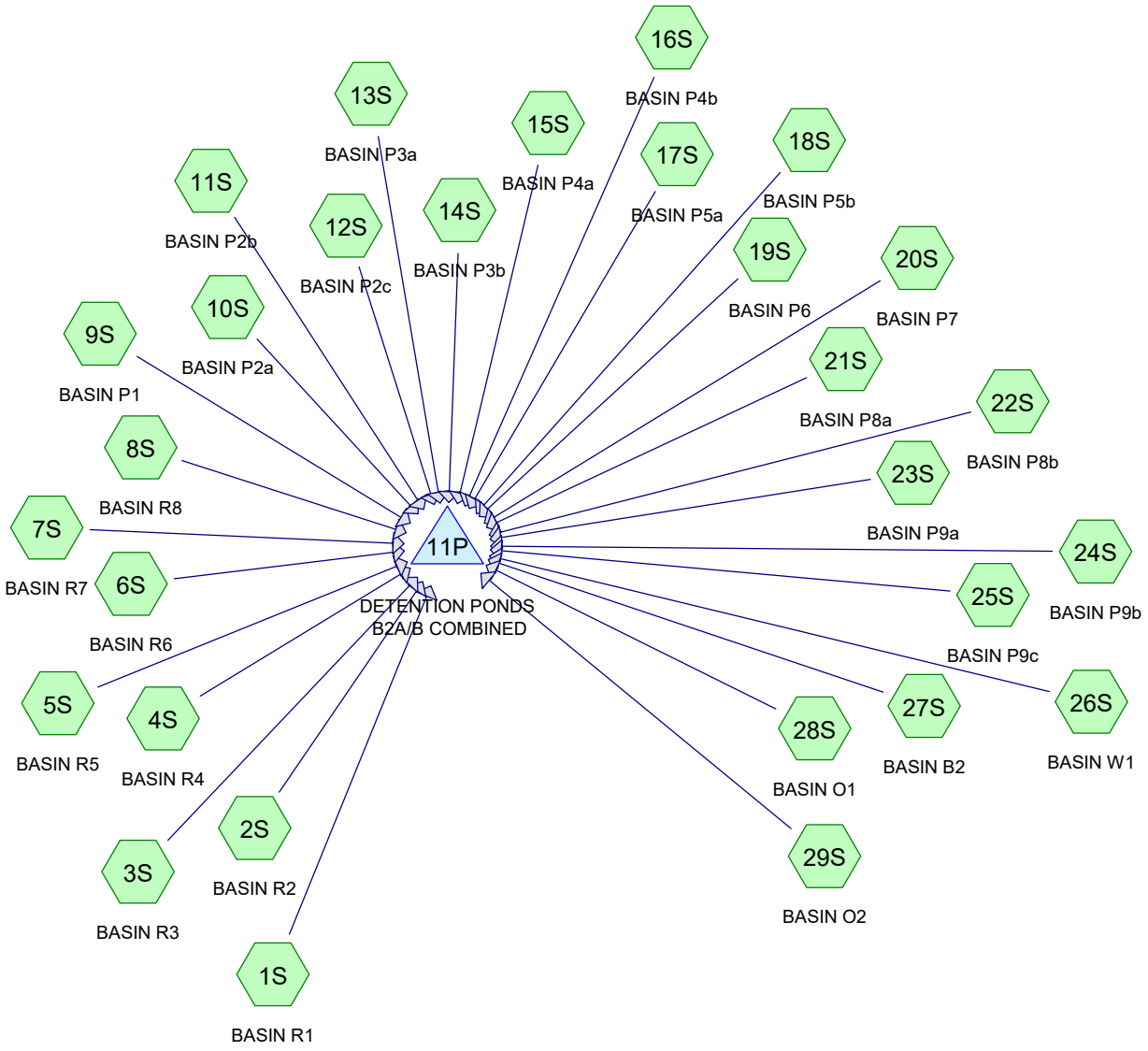
DRAINAGE BASIN LABEL	AREA	(SF)	AREA (AC)		ESTIMATED PERCENT IMPERVIOUS	COMPOSITE RUNOFF CURVE NUMBER	LONGEST RUN OF PIPE (LF)	APPROX. DEV. TOC. (MIN.)	FLOW RATE (Q) CFS	FLOW VOL. (AC-FT)
BASIN R1	126,838.00	ft^2	**2.912**	**ac**	95%	96.15	3620	25.11	12.26	2.108
BASIN R2	78,988.00	ft^2	**1.813**	**ac**	95%	96.15	2725	20.14	8.50	1.313
BASIN R3	117,050.00	ft^2	**2.687**	**ac**	90%	94.30	2375	18.19	13.03	1.891
BASIN R4	89,443.00	ft^2	**2.053**	**ac**	90%	94.30	1950	15.83	10.55	1.445
BASIN R5	44,898.00	ft^2	**1.031**	**ac**	85%	92.45	2200	17.22	5.04	0.705
BASIN R6	11,202.00	ft^2	**0.257**	**ac**	95%	96.15	1880	15.44	1.35	0.186
BASIN R7	68,537.00	ft^2	**1.573**	**ac**	85%	92.45	1270	12.06	8.74	1.075
BASIN R8	38,997.00	ft^2	**0.895**	**ac**	85%	92.45	1150	11.39	5.24	0.666
BASIN P1	470,352.00	ft^2	**10.798**	**ac**	65%	85.05	2350	18.06	47.62	6.611
BASIN P2a	432,090.00	ft^2	**9.919**	**ac**	65%	85.05	3620	25.11	37.34	6.073
BASIN P2b	102,027.00	ft^2	**2.342**	**ac**	75%	88.75	1170	11.50	12.83	1.530
BASIN P2c	124,307.00	ft^2	**2.854**	**ac**	75%	88.75	1390	12.72	15.18	1.864
BASIN P3a	422,786.00	ft^2	**9.706**	**ac**	85%	92.45	3175	22.64	41.89	6.635
BASIN P3b	435,008.00	ft^2	**9.986**	**ac**	65%	85.05	1940	15.78	46.58	6.114
BASIN P4a	443,375.00	ft^2	**10.178**	**ac**	65%	85.05	2355	18.08	44.88	6.231
BASIN P4b	181,457.00	ft^2	**4.166**	**ac**	85%	92.45	1715	14.53	21.82	2.848
BASIN P5a	431,724.00	ft^2	**9.911**	**ac**	65%	85.05	755	9.19	54.93	6.068
BASIN P5b	503,515.00	ft^2	**11.559**	**ac**	75%	88.75	795	9.42	67.00	7.549
BASIN P6	456,755.00	ft^2	**10.486**	**ac**	65%	85.05	1150	11.39	54.76	6.420
BASIN P7	356,800.00	ft^2	**8.191**	**ac**	75%	88.75	180	6.00	51.40	5.350
BASIN P8a	579,971.00	ft^2	**13.314**	**ac**	85%	92.45	3305	23.36	56.51	9.101
BASIN P8b	246,008.00	ft^2	**5.648**	**ac**	85%	92.45	1475	13.19	30.56	3.861
BASIN P9a	621,666.00	ft^2	**14.271**	**ac**	75%	88.75	1305	12.25	76.84	9.320

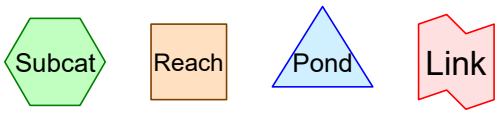
BASIN P9b	136,091.00	ft^2	**3.124**	**ac**	75%	88.75	410	7.28	18.99	2.040
BASIN P9c	295,309.00	ft^2	**6.779**	**ac**	75%	88.75	2110	16.72	32.54	4.427
BASIN W1	63,697.00	ft^2	**1.462**	**ac**	50%	79.50	205	6.14	8.05	0.820
BASIN B2	530,214.00	ft^2	**12.172**	**ac**	0%	61.00	0	5.00	42.53	4.422
	TOTAL DRAINAGE AREA (SF)		**TOTAL DRAINAGE AREA (ac)**						**TOTAL Q FLOW (cfs)**	**TOTAL VOLUME (AC-FT)**
PROPOSED DRAINAGE CONDITION	**7,409,105.00**	**ft^2**	**170.090**	**ac**					**826.96**	**106.67**

UPSTREAM BASIN LABEL	**TOTAL DRAINAGE AREA (SF)**		**TOTAL DRAINAGE AREA (ac)**			**COMPOSITE RUNOFF CURVE NUMBER**		**APPROX. DEV. TOC. (MIN.)**	**TOTAL Q FLOW (cfs)**	**TOTAL VOLUME (AC-FT)**
BASIN O1	6,160,523.00	ft^2	**141.43**	**ac**		58.00		153.7	**88.02**	**46.96**
BASIN O2	319,139.00	ft^2	**7.33**	**ac**		61.00		56.5	**9.59**	**2.66**

DEVELOPED DETENTION BASIN ANALYSIS

BASIN LABEL	**CONTRIBUTING BASINS**	**AVAILABLE STORAGE (AC-FT)**	**DEVELOPED FLOW RATE (CFS)**	**DEVELOPED VOL. (AC-FT)**	**AVAILABLE VOLUME (AC-FT)**
BASIN B2A & B2B (EXIST BOT. ELEV. 32)	O1, O2, R1-8, P1-9, W1, B2	94.704	924.57	156.29	-61.59
BASIN B2A & B2B (BOT. ELEV. 20)	O1, O2, R1-8, P1-9, W1, B2	168.994	1017.73	156.29	12.70





Routing Diagram for PRELIM HYDRO_DEVELOPED
Prepared by Pioneer Design Group, Printed 12/24/2025
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
141.426	56	(28S)
12.172	61	DRAINAGE BASIN B2 (27S)
2.912	96	HANSEN ROAD (1S)
6.763	58	Meadow, non-grazed, HSG B (29S)
10.798	85	PHASE 1 (9S)
9.919	85	PHASE 2 (10S)
5.196	89	PHASE 2 (11S, 12S)
9.706	92	PHASE 3 (13S)
9.986	85	PHASE 3 (14S)
10.178	85	PHASE 4 (15S)
4.166	92	PHASE 4 (16S)
9.911	85	PHASE 5 (17S)
11.559	89	PHASE 5 (18S)
10.486	85	PHASE 6 (19S)
8.191	89	PHASE 7 (20S)
18.962	92	PHASE 8 (21S, 22S)
24.174	89	PHASE 9 (23S, 24S, 25S)
1.462	80	POTENTIAL WWTP (26S)
2.687	94	PROPOSED ROAD UNDER PHASE 2 (3S)
2.053	94	PROPOSED ROAD UNDER PHASE 3 (4S)
1.031	92	PROPOSED ROAD UNDER PHASE 4 (5S)
0.257	96	PROPOSED ROAD UNDER PHASE 4 (6S)
1.573	92	PROPOSED ROAD UNDER PHASE 5 (7S)
0.895	98	PROPOSED ROAD UNDER PHASE 6 (8S)
1.813	96	PULEHU ROAD (2S)
0.563	98	Paved roads w/curbs & sewers, HSG B (29S)
318.839	**72**	**TOTAL AREA**

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: BASIN R1 Runoff Area=2.912 ac 0.00% Impervious Runoff Depth=8.69"
Tc=25.1 min CN=96 Runoff=12.26 cfs 2.108 af

Subcatchment 2S: BASIN R2 Runoff Area=1.813 ac 0.00% Impervious Runoff Depth=8.69"
Tc=20.1 min CN=96 Runoff=8.50 cfs 1.313 af

Subcatchment 3S: BASIN R3 Runoff Area=2.687 ac 0.00% Impervious Runoff Depth=8.45"
Flow Length=640' Tc=18.2 min CN=94 Runoff=13.03 cfs 1.891 af

Subcatchment 4S: BASIN R4 Runoff Area=2.053 ac 0.00% Impervious Runoff Depth=8.45"
Tc=15.8 min CN=94 Runoff=10.55 cfs 1.445 af

Subcatchment 5S: BASIN R5 Runoff Area=1.031 ac 0.00% Impervious Runoff Depth=8.20"
Tc=17.2 min CN=92 Runoff=5.04 cfs 0.705 af

Subcatchment 6S: BASIN R6 Runoff Area=0.257 ac 0.00% Impervious Runoff Depth=8.69"
Tc=15.4 min CN=96 Runoff=1.35 cfs 0.186 af

Subcatchment 7S: BASIN R7 Runoff Area=1.573 ac 0.00% Impervious Runoff Depth=8.20"
Tc=12.1 min CN=92 Runoff=8.74 cfs 1.075 af

Subcatchment 8S: BASIN R8 Runoff Area=0.895 ac 100.00% Impervious Runoff Depth=8.93"
Tc=11.4 min CN=98 Runoff=5.24 cfs 0.666 af

Subcatchment 9S: BASIN P1 Runoff Area=10.798 ac 0.00% Impervious Runoff Depth=7.35"
Tc=18.1 min CN=85 Runoff=47.62 cfs 6.611 af

Subcatchment 10S: BASIN P2a Runoff Area=9.919 ac 0.00% Impervious Runoff Depth=7.35"
Tc=25.1 min CN=85 Runoff=37.34 cfs 6.073 af

Subcatchment 11S: BASIN P2b Runoff Area=2.342 ac 0.00% Impervious Runoff Depth=7.84"
Tc=11.5 min CN=89 Runoff=12.83 cfs 1.530 af

Subcatchment 12S: BASIN P2c Runoff Area=2.854 ac 0.00% Impervious Runoff Depth=7.84"
Tc=12.7 min CN=89 Runoff=15.18 cfs 1.864 af

Subcatchment 13S: BASIN P3a Runoff Area=9.706 ac 0.00% Impervious Runoff Depth=8.20"
Tc=22.6 min CN=92 Runoff=41.89 cfs 6.635 af

Subcatchment 14S: BASIN P3b Runoff Area=9.986 ac 0.00% Impervious Runoff Depth=7.35"
Tc=15.8 min CN=85 Runoff=46.58 cfs 6.114 af

Subcatchment 15S: BASIN P4a Runoff Area=10.178 ac 0.00% Impervious Runoff Depth=7.35"
Tc=18.1 min CN=85 Runoff=44.88 cfs 6.231 af

Subcatchment 16S: BASIN P4b Runoff Area=4.166 ac 0.00% Impervious Runoff Depth=8.20"
Tc=14.5 min CN=92 Runoff=21.82 cfs 2.848 af

Subcatchment 17S: BASIN P5a Runoff Area=9.911 ac 0.00% Impervious Runoff Depth=7.35"
Tc=9.2 min CN=85 Runoff=54.93 cfs 6.068 af

Subcatchment 18S: BASIN P5b Runoff Area=11.559 ac 0.00% Impervious Runoff Depth=7.84"
Tc=9.4 min CN=89 Runoff=67.00 cfs 7.549 af

Subcatchment 19S: BASIN P6 Runoff Area=10.486 ac 0.00% Impervious Runoff Depth=7.35"
Tc=11.4 min CN=85 Runoff=54.76 cfs 6.420 af

Subcatchment 20S: BASIN P7 Runoff Area=8.191 ac 0.00% Impervious Runoff Depth=7.84"
Tc=6.0 min CN=89 Runoff=51.40 cfs 5.350 af

Subcatchment 21S: BASIN P8a Runoff Area=13.314 ac 0.00% Impervious Runoff Depth=8.20"
Tc=23.4 min CN=92 Runoff=56.51 cfs 9.101 af

Subcatchment 22S: BASIN P8b Runoff Area=5.648 ac 0.00% Impervious Runoff Depth=8.20"
Tc=13.2 min CN=92 Runoff=30.56 cfs 3.861 af

Subcatchment 23S: BASIN P9a Runoff Area=14.271 ac 0.00% Impervious Runoff Depth=7.84"
Tc=12.2 min CN=89 Runoff=76.84 cfs 9.320 af

Subcatchment 24S: BASIN P9b Runoff Area=3.124 ac 0.00% Impervious Runoff Depth=7.84"
Tc=7.3 min CN=89 Runoff=18.99 cfs 2.040 af

Subcatchment 25S: BASIN P9c Runoff Area=6.779 ac 0.00% Impervious Runoff Depth=7.84"
Tc=16.7 min CN=89 Runoff=32.54 cfs 4.427 af

Subcatchment 26S: BASIN W1 Runoff Area=1.462 ac 0.00% Impervious Runoff Depth=6.73"
Tc=6.1 min CN=80 Runoff=8.05 cfs 0.820 af

Subcatchment 27S: BASIN B2 Runoff Area=12.172 ac 0.00% Impervious Runoff Depth=4.36"
Tc=5.0 min CN=61 Runoff=42.53 cfs 4.422 af

Subcatchment 28S: BASIN O1 Runoff Area=141.426 ac 0.00% Impervious Runoff Depth=3.74"
Tc=153.7 min CN=56 Runoff=80.78 cfs 44.027 af

Subcatchment 29S: BASIN O2 Runoff Area=7.326 ac 7.68% Impervious Runoff Depth=4.36"
Tc=56.5 min CN=61 Runoff=9.59 cfs 2.661 af

Pond 11P: DETENTION PONDS B2A/B Peak Elev=44.20' Storage=151.747 af Inflow=747.62 cfs 153.361 af
Outflow=5.63 cfs 4.212 af

Total Runoff Area = 318.839 ac Runoff Volume = 153.361 af Average Runoff Depth = 5.77"
99.54% Pervious = 317.381 ac 0.46% Impervious = 1.458 ac

Summary for Subcatchment 1S: BASIN R1

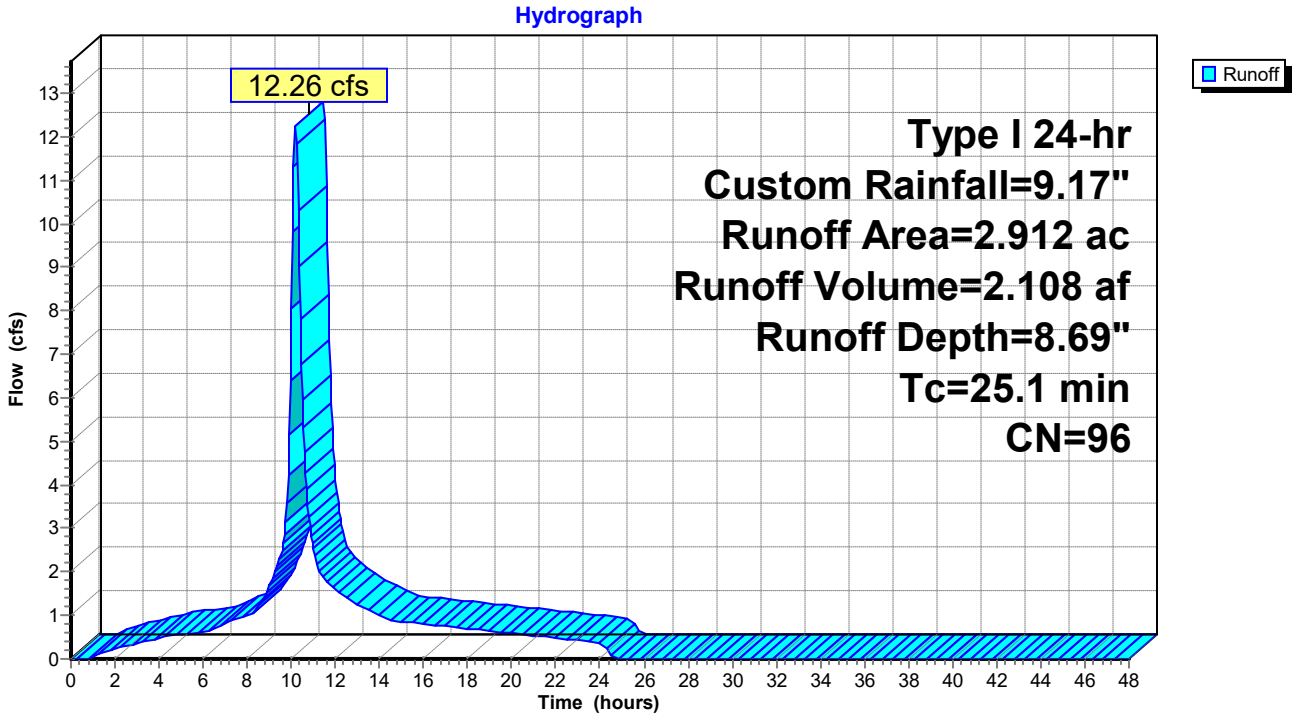
Runoff = 12.26 cfs @ 10.18 hrs, Volume= 2.108 af, Depth= 8.69"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	2.912	96	HANSEN ROAD
	2.912		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.1					**Direct Entry, PREDEV TOC**

Subcatchment 1S: BASIN R1



Summary for Subcatchment 2S: BASIN R2

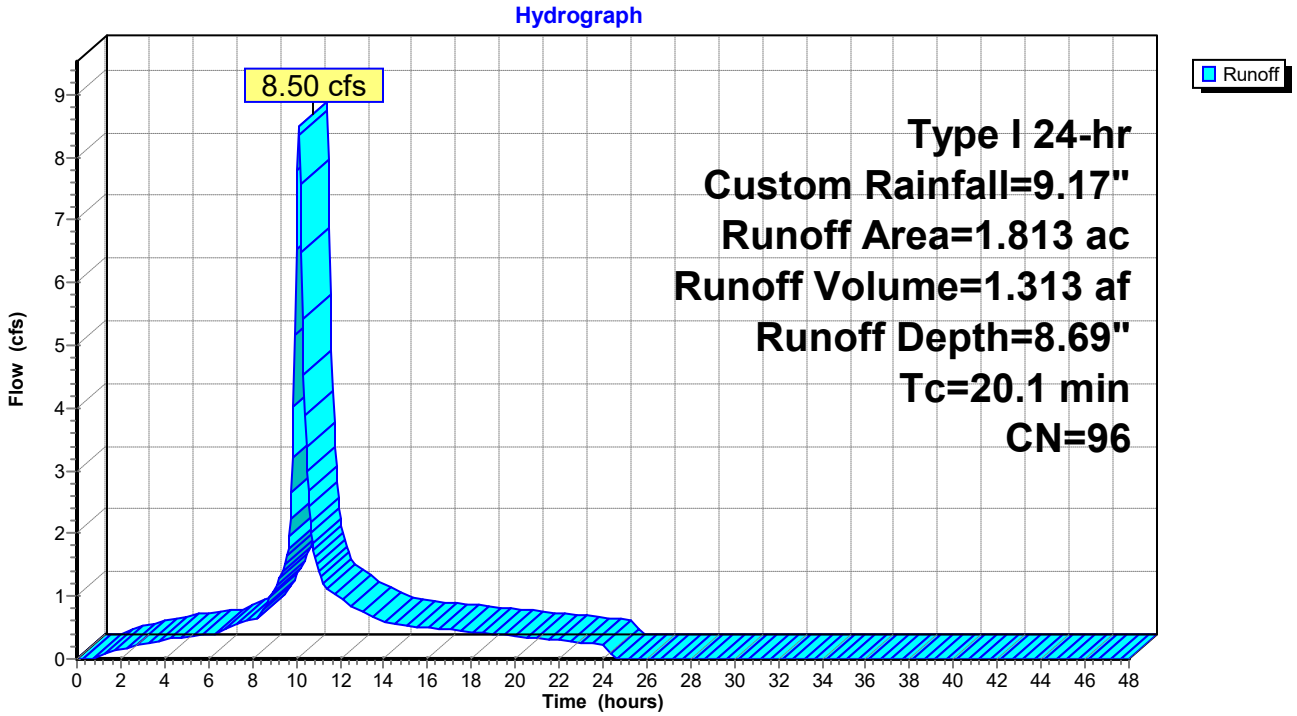
Runoff = 8.50 cfs @ 10.12 hrs, Volume= 1.313 af, Depth= 8.69"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	1.813	96	PULEHU ROAD
	1.813		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.1					**Direct Entry,**

Subcatchment 2S: BASIN R2



Summary for Subcatchment 3S: BASIN R3

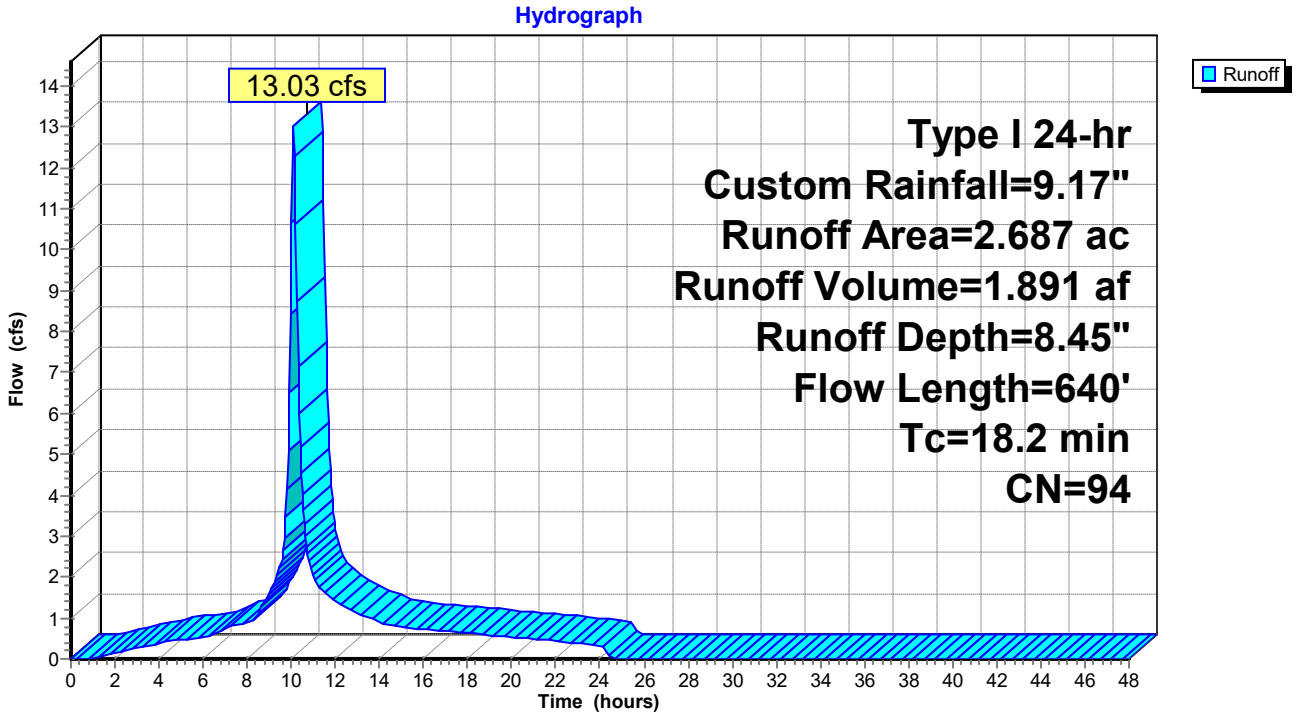
Runoff = 13.03 cfs @ 10.10 hrs, Volume= 1.891 af, Depth= 8.45"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	2.687	94	PROPOSED ROAD UNDER PHASE 2
	2.687		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.2	640		0.59		**Direct Entry,**

Subcatchment 3S: BASIN R3



Summary for Subcatchment 4S: BASIN R4

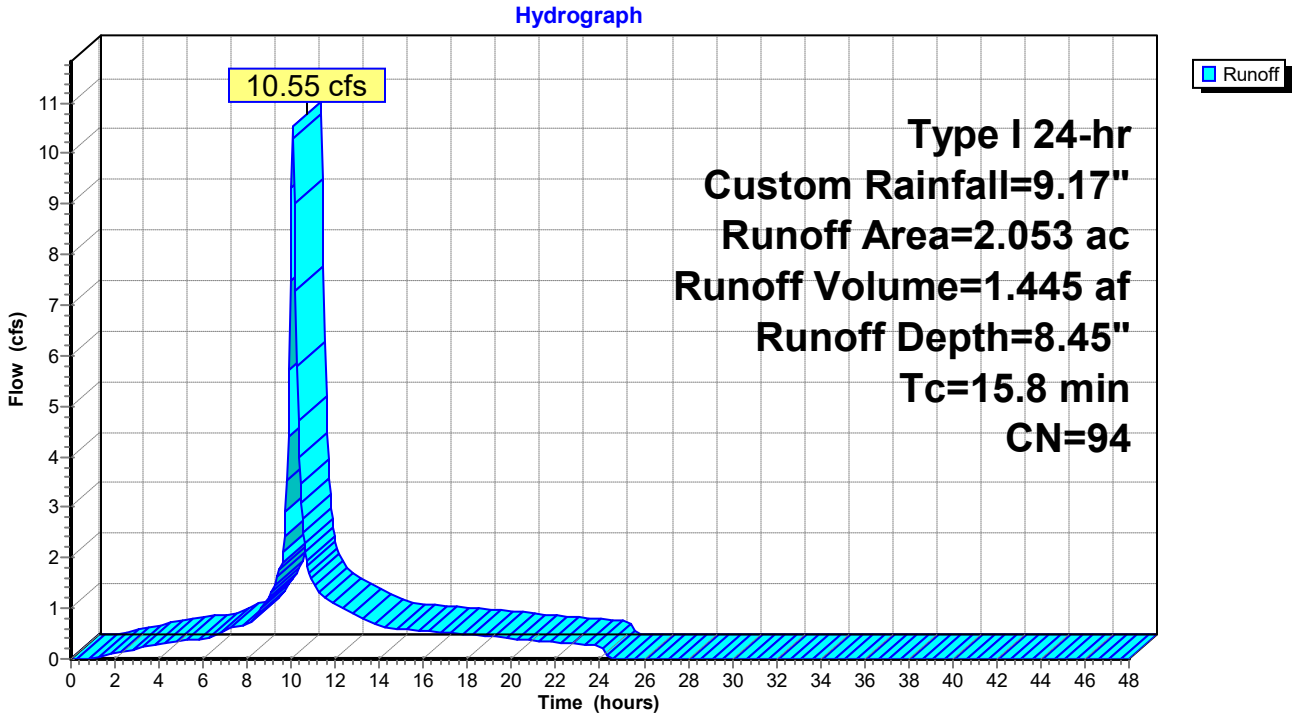
Runoff = 10.55 cfs @ 10.07 hrs, Volume= 1.445 af, Depth= 8.45"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	2.053	94	PROPOSED ROAD UNDER PHASE 3
	2.053		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.8					**Direct Entry,**

Subcatchment 4S: BASIN R4



Summary for Subcatchment 5S: BASIN R5

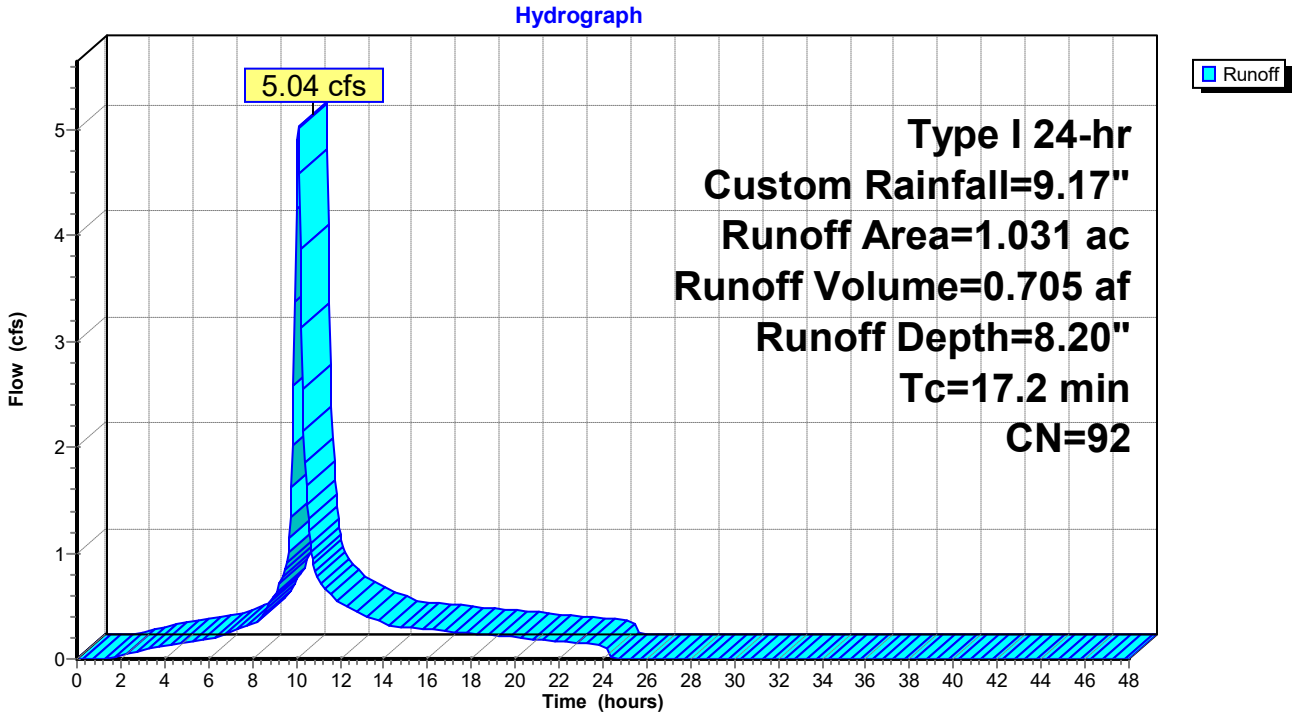
Runoff = 5.04 cfs @ 10.09 hrs, Volume= 0.705 af, Depth= 8.20"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	1.031	92	PROPOSED ROAD UNDER PHASE 4
	1.031		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2					**Direct Entry,**

Subcatchment 5S: BASIN R5



Summary for Subcatchment 6S: BASIN R6

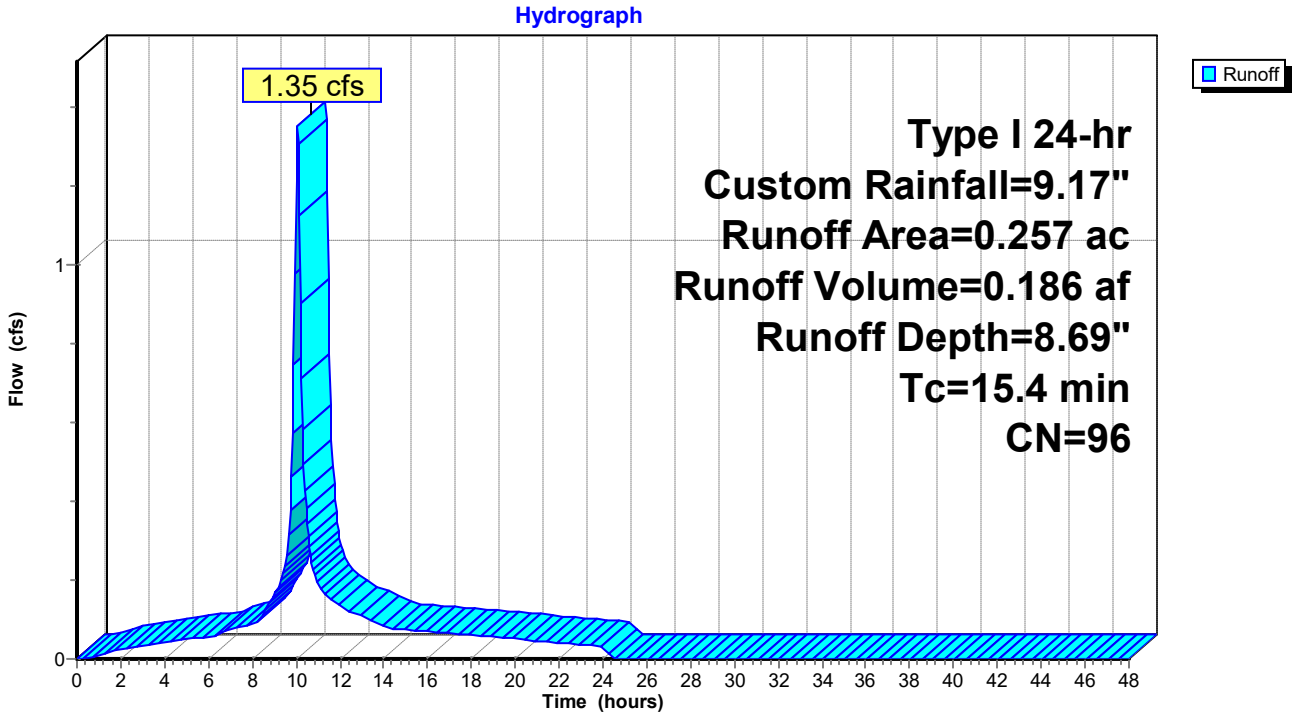
Runoff = 1.35 cfs @ 10.06 hrs, Volume= 0.186 af, Depth= 8.69"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	0.257	96	PROPOSED ROAD UNDER PHASE 4
	0.257		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4					**Direct Entry,**

Subcatchment 6S: BASIN R6



Summary for Subcatchment 7S: BASIN R7

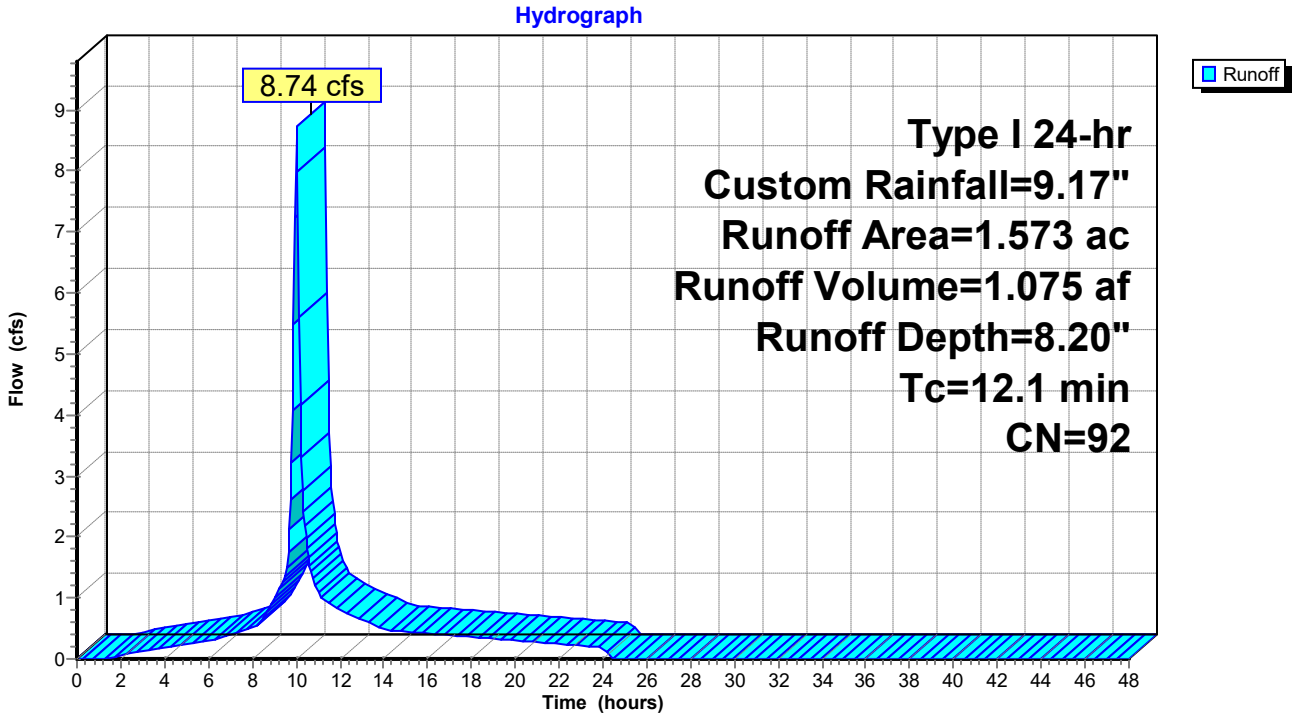
Runoff = 8.74 cfs @ 10.03 hrs, Volume= 1.075 af, Depth= 8.20"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	1.573	92	PROPOSED ROAD UNDER PHASE 5
	1.573		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1					**Direct Entry,**

Subcatchment 7S: BASIN R7



Summary for Subcatchment 8S: BASIN R8

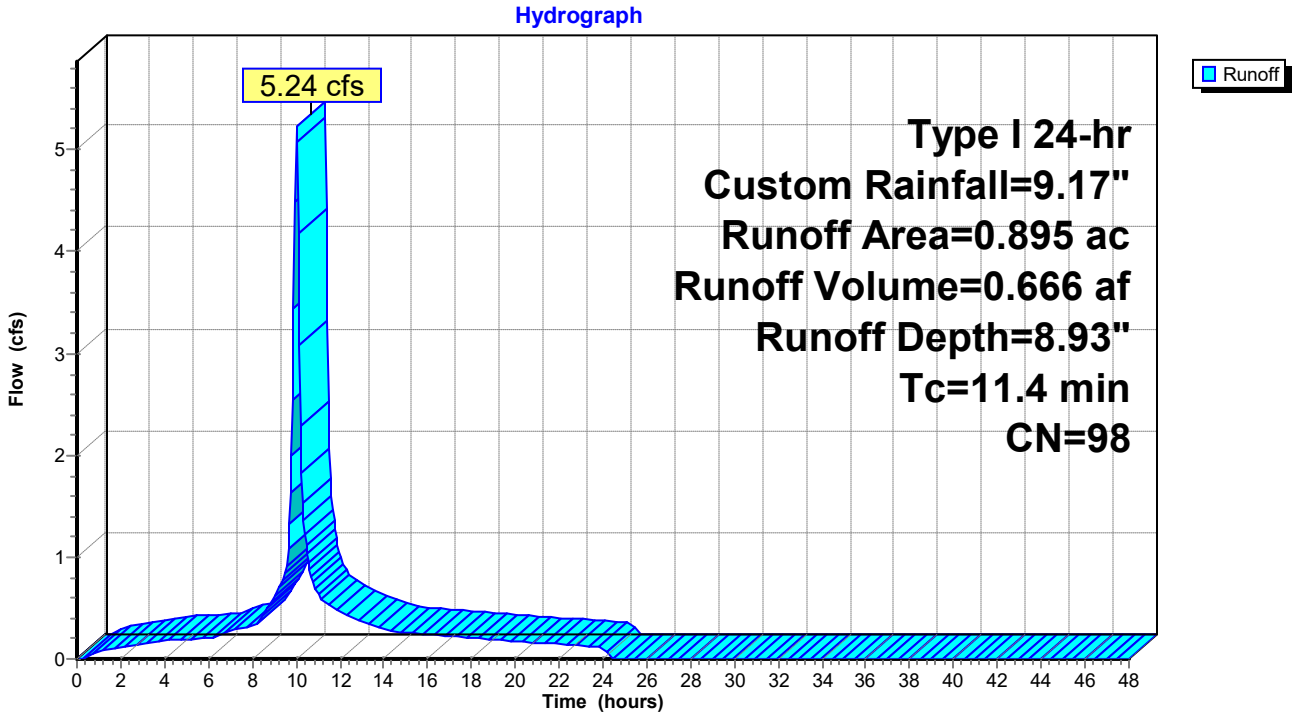
Runoff = 5.24 cfs @ 10.02 hrs, Volume= 0.666 af, Depth= 8.93"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	0.895	98	PROPOSED ROAD UNDER PHASE 6
	0.895		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4					**Direct Entry,**

Subcatchment 8S: BASIN R8



Summary for Subcatchment 9S: BASIN P1

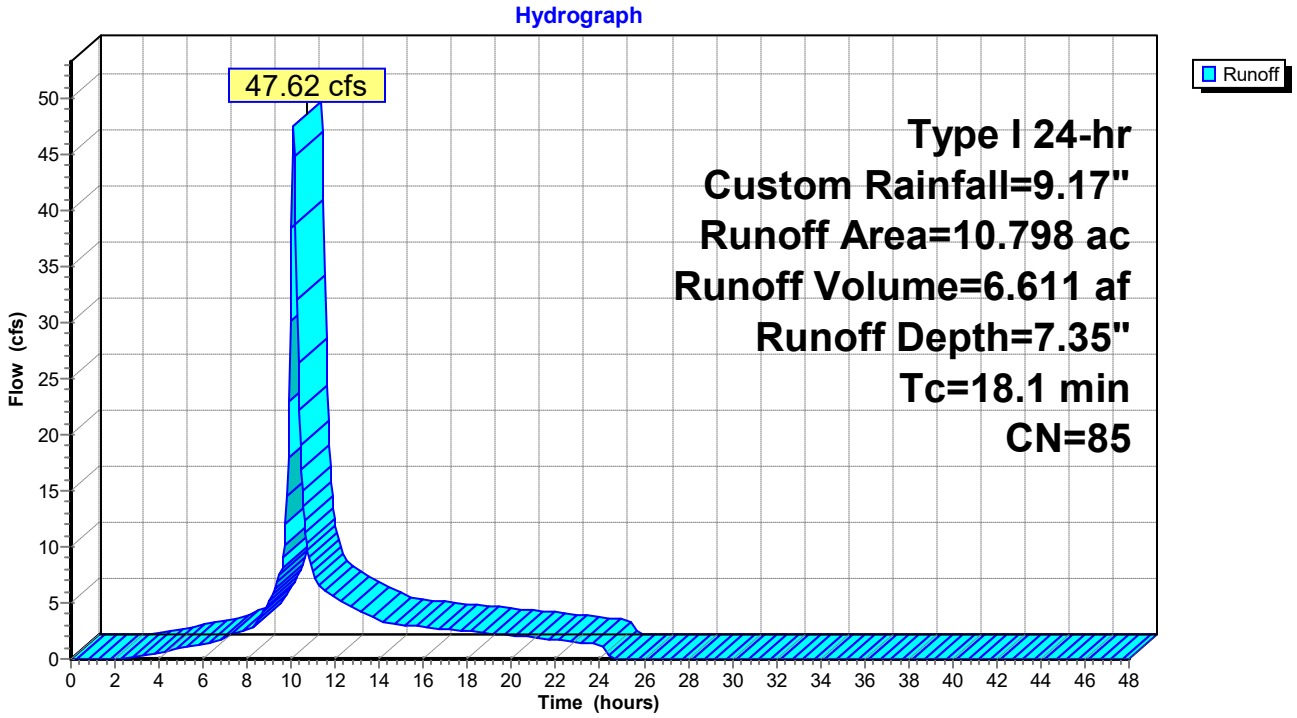
Runoff = 47.62 cfs @ 10.10 hrs, Volume= 6.611 af, Depth= 7.35"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	10.798	85	PHASE 1
	10.798		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1					**Direct Entry,**

Subcatchment 9S: BASIN P1



Summary for Subcatchment 10S: BASIN P2a

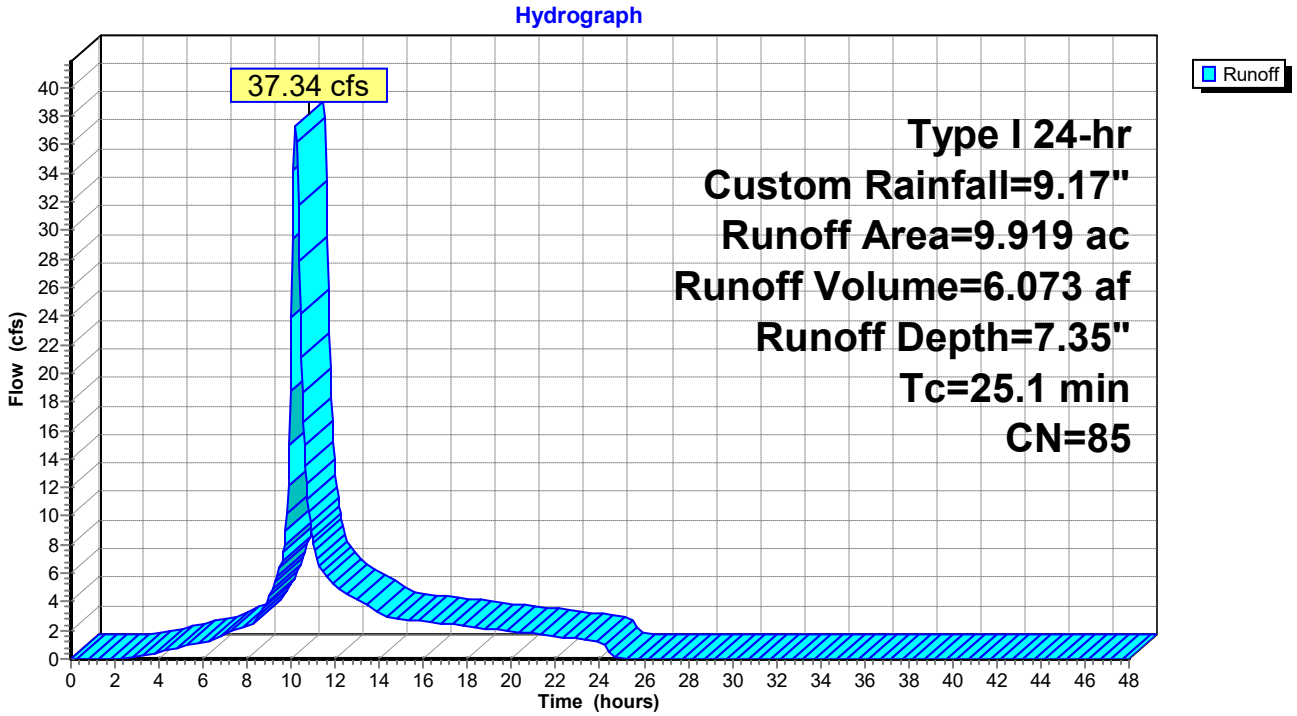
Runoff = 37.34 cfs @ 10.18 hrs, Volume= 6.073 af, Depth= 7.35"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	9.919	85	PHASE 2
	9.919		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.1					**Direct Entry,**

Subcatchment 10S: BASIN P2a



Summary for Subcatchment 11S: BASIN P2b

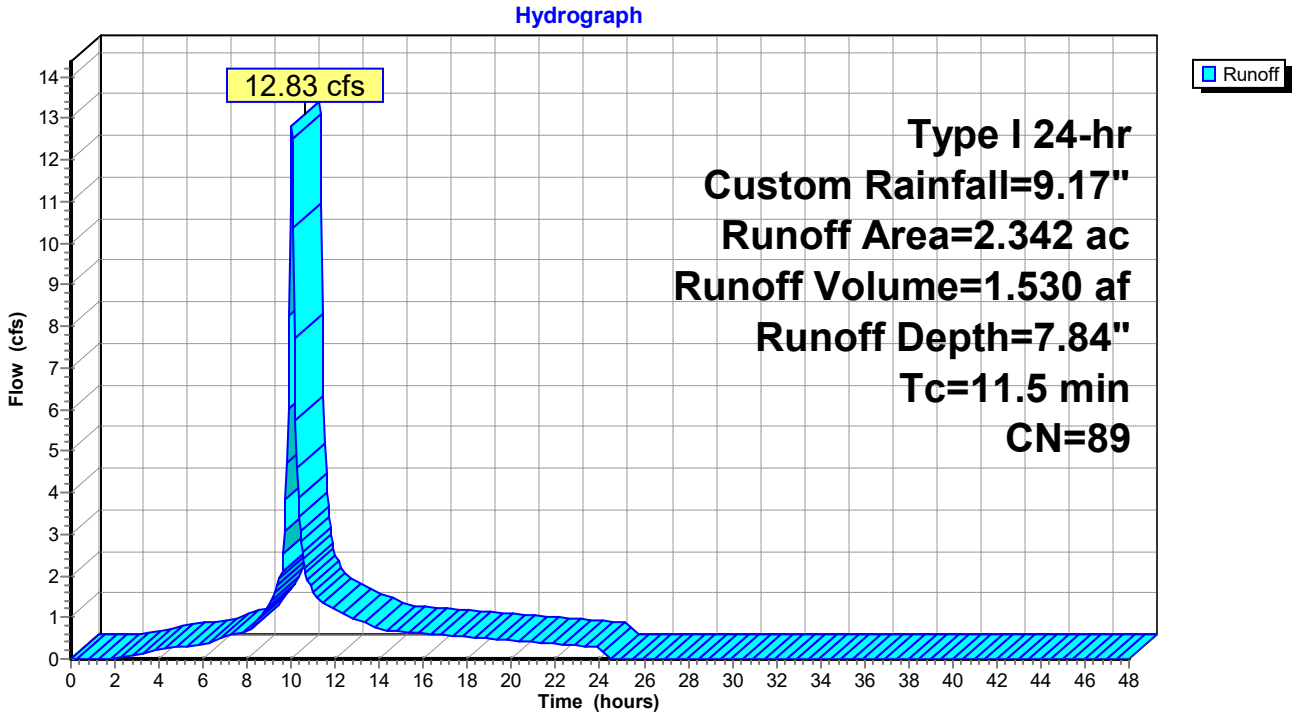
Runoff = 12.83 cfs @ 10.02 hrs, Volume= 1.530 af, Depth= 7.84"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	2.342	89	PHASE 2
	2.342		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5					**Direct Entry,**

Subcatchment 11S: BASIN P2b



Summary for Subcatchment 12S: BASIN P2c

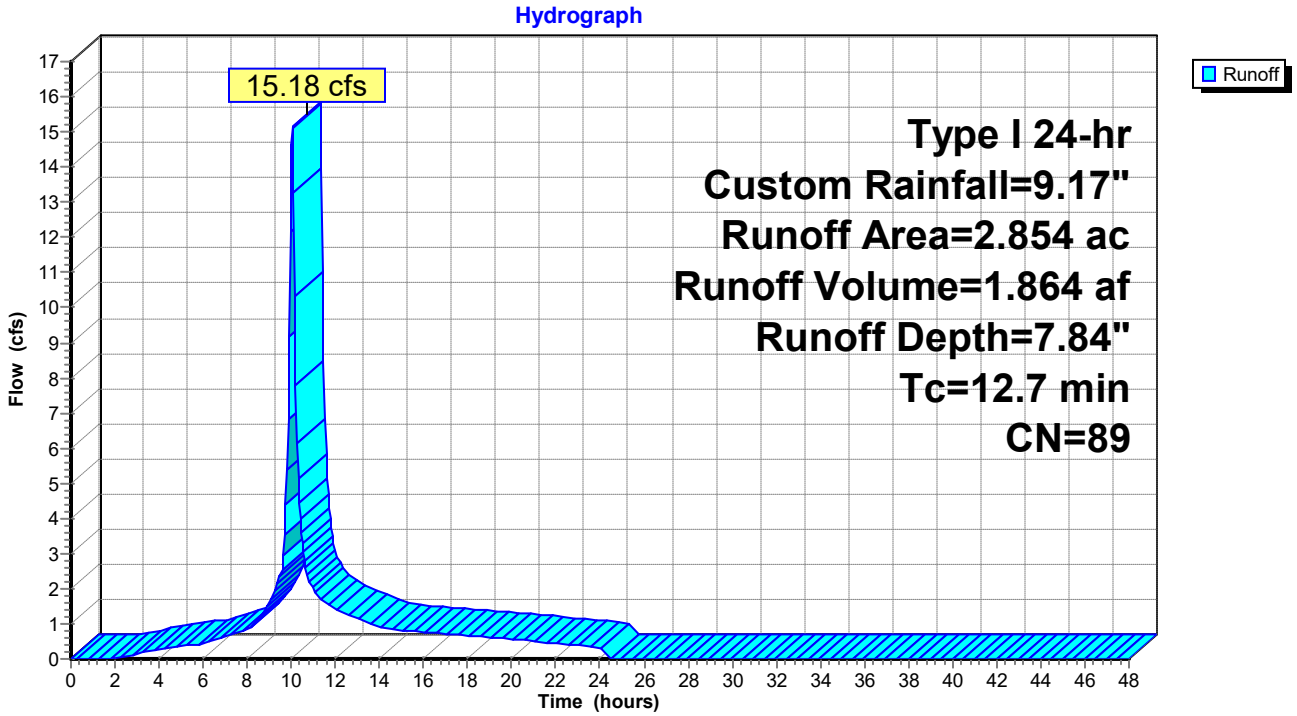
Runoff = 15.18 cfs @ 10.04 hrs, Volume= 1.864 af, Depth= 7.84"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	2.854	89	PHASE 2
	2.854		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7					**Direct Entry,**

Subcatchment 12S: BASIN P2c



Summary for Subcatchment 13S: BASIN P3a

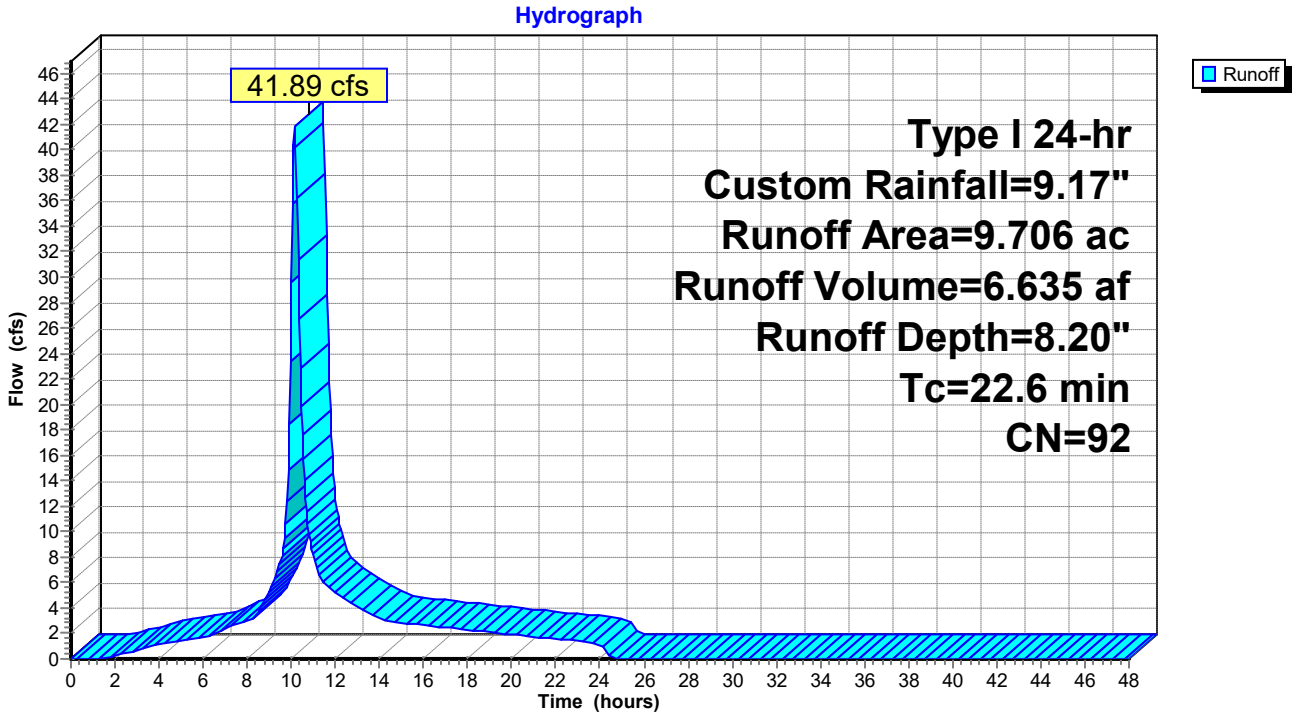
Runoff = 41.89 cfs @ 10.15 hrs, Volume= 6.635 af, Depth= 8.20"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	9.706	92	PHASE 3
	9.706		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.6					**Direct Entry,**

Subcatchment 13S: BASIN P3a



Summary for Subcatchment 14S: BASIN P3b

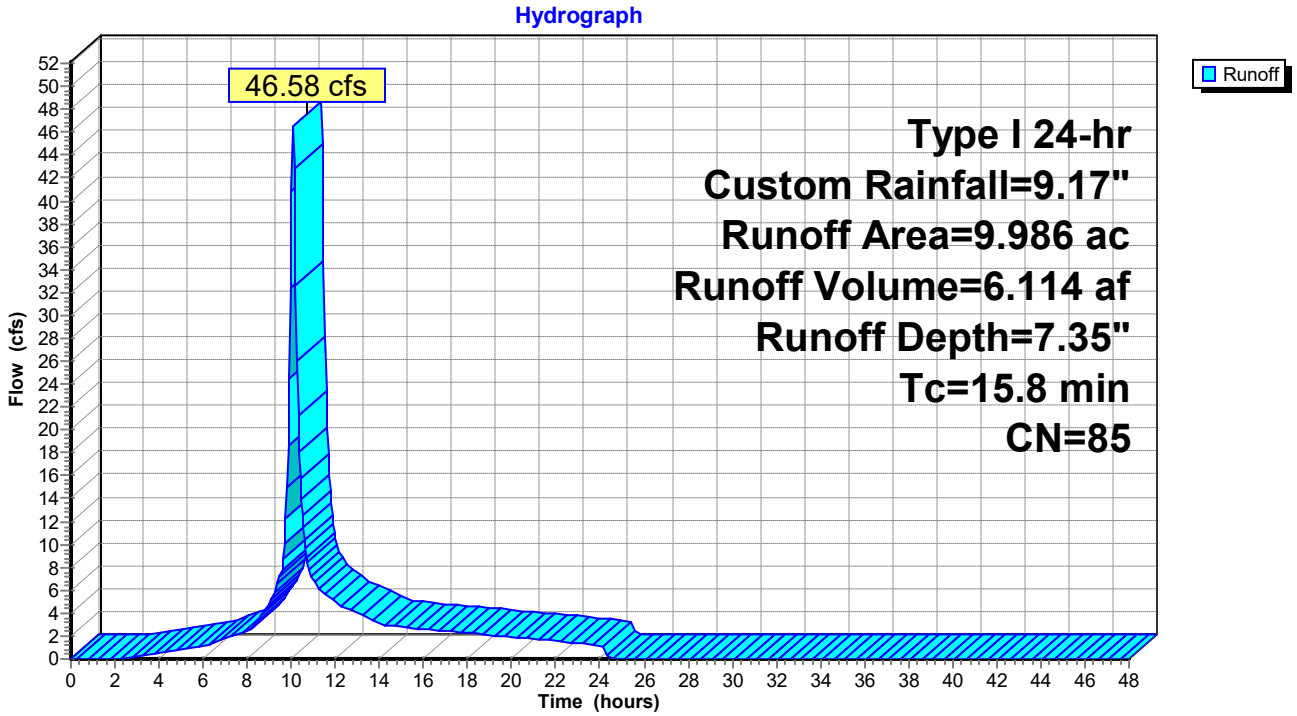
Runoff = 46.58 cfs @ 10.07 hrs, Volume= 6.114 af, Depth= 7.35"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	9.986	85	PHASE 3
	9.986		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.8					**Direct Entry,**

Subcatchment 14S: BASIN P3b



Summary for Subcatchment 15S: BASIN P4a

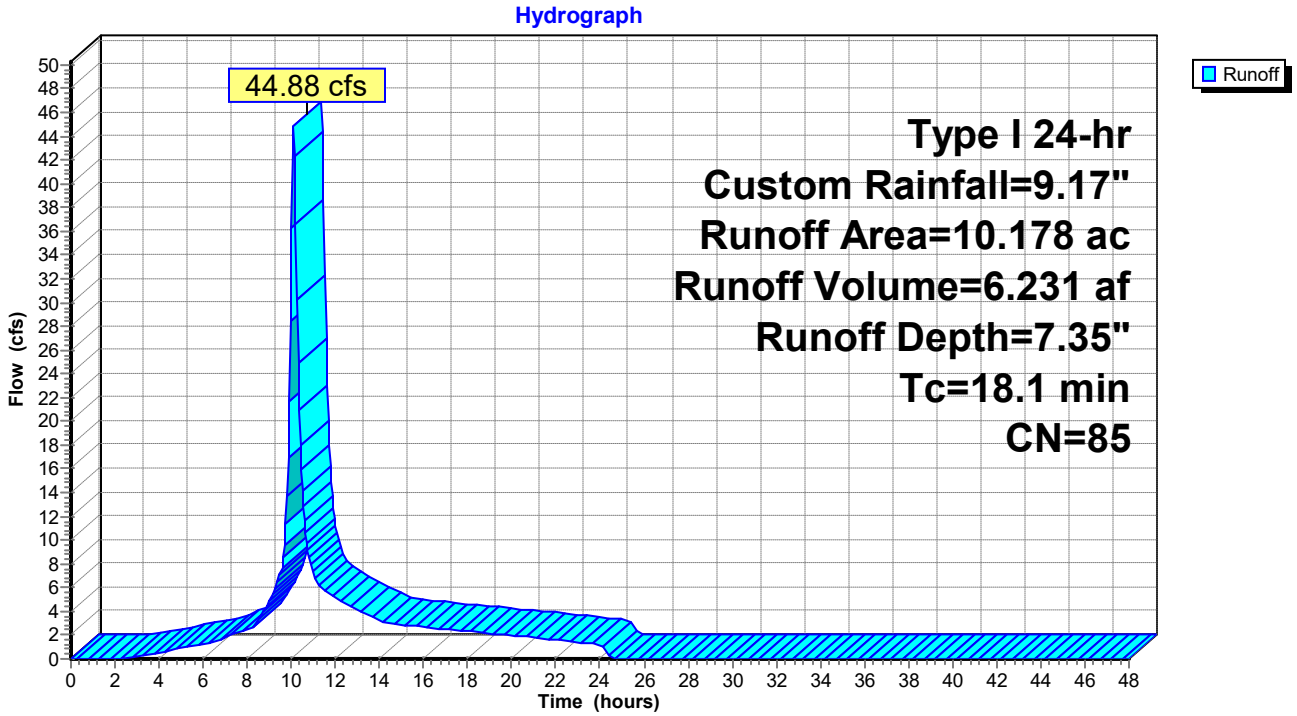
Runoff = 44.88 cfs @ 10.10 hrs, Volume= 6.231 af, Depth= 7.35"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	10.178	85	PHASE 4
	10.178		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1					**Direct Entry,**

Subcatchment 15S: BASIN P4a



Summary for Subcatchment 16S: BASIN P4b

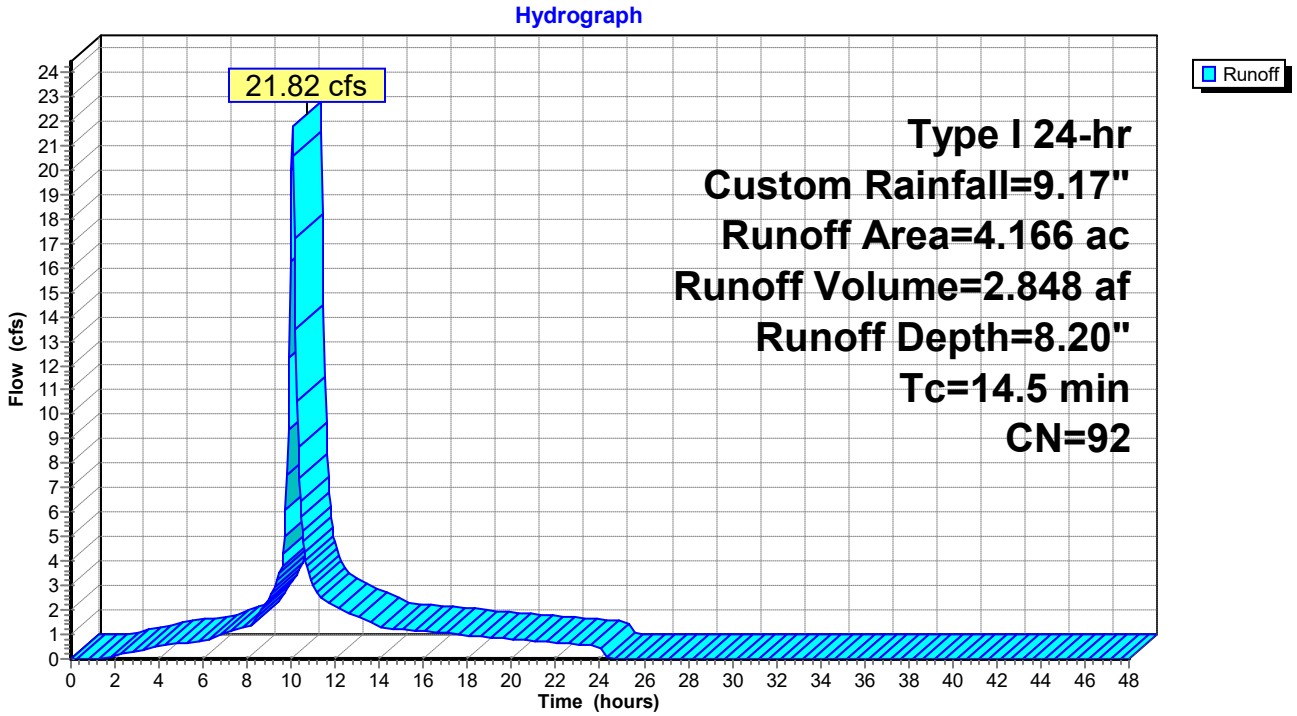
Runoff = 21.82 cfs @ 10.05 hrs, Volume= 2.848 af, Depth= 8.20"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	4.166	92	PHASE 4
	4.166		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5					**Direct Entry,**

Subcatchment 16S: BASIN P4b



Summary for Subcatchment 17S: BASIN P5a

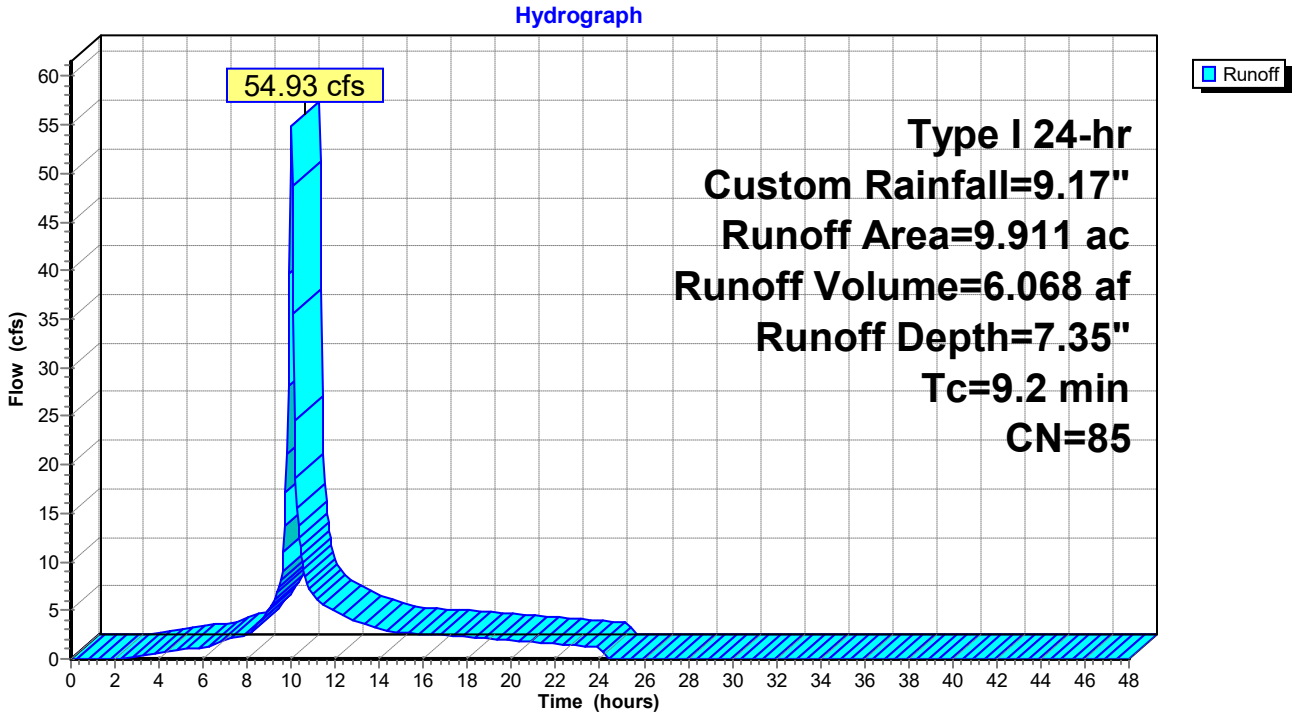
Runoff = 54.93 cfs @ 9.99 hrs, Volume= 6.068 af, Depth= 7.35"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	9.911	85	PHASE 5
	9.911		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2					**Direct Entry,**

Subcatchment 17S: BASIN P5a



Summary for Subcatchment 18S: BASIN P5b

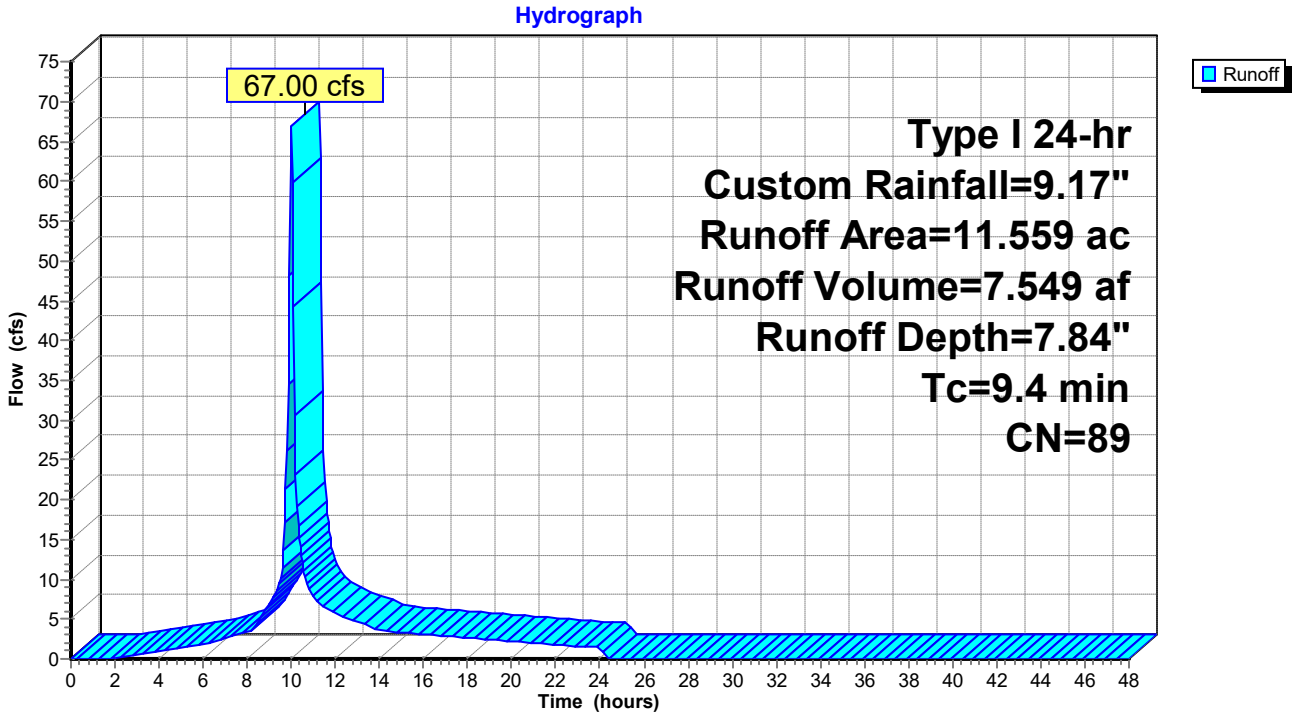
Runoff = 67.00 cfs @ 10.00 hrs, Volume= 7.549 af, Depth= 7.84"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	11.559	89	PHASE 5
	11.559		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4					**Direct Entry,**

Subcatchment 18S: BASIN P5b



Summary for Subcatchment 19S: BASIN P6

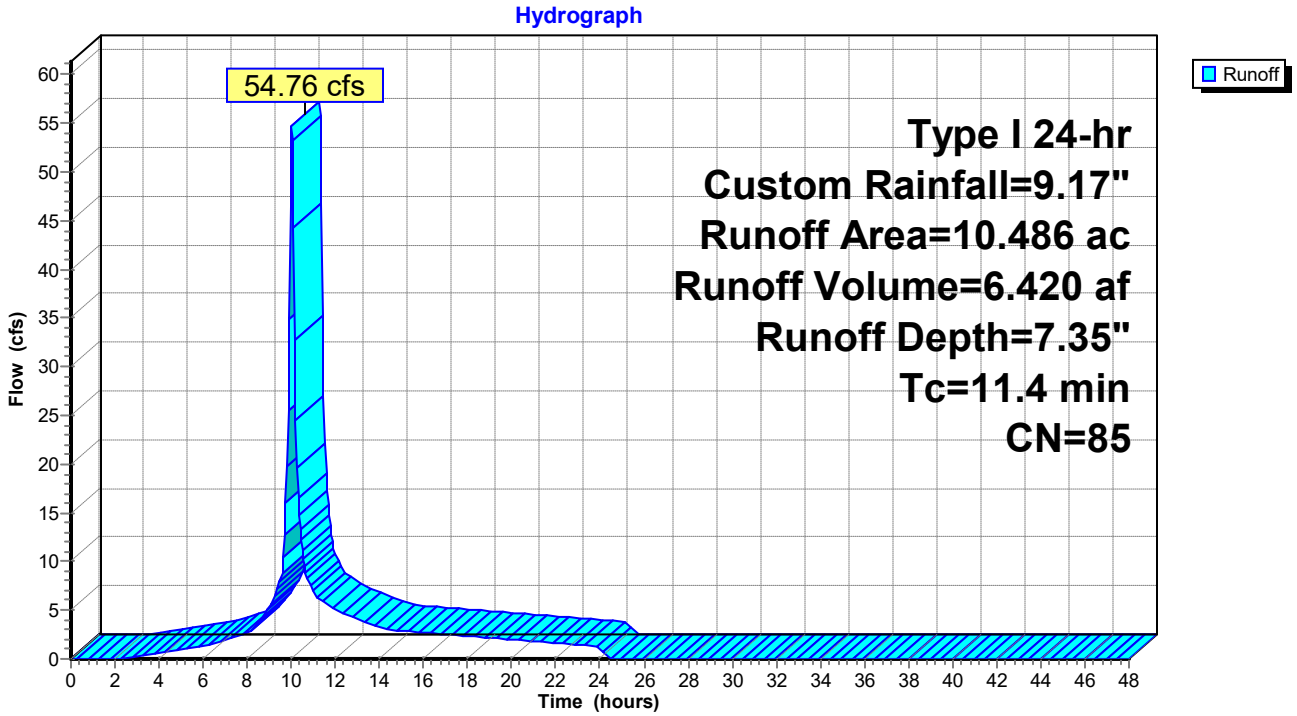
Runoff = 54.76 cfs @ 10.02 hrs, Volume= 6.420 af, Depth= 7.35"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	10.486	85	PHASE 6
	10.486		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4					**Direct Entry,**

Subcatchment 19S: BASIN P6



Summary for Subcatchment 20S: BASIN P7

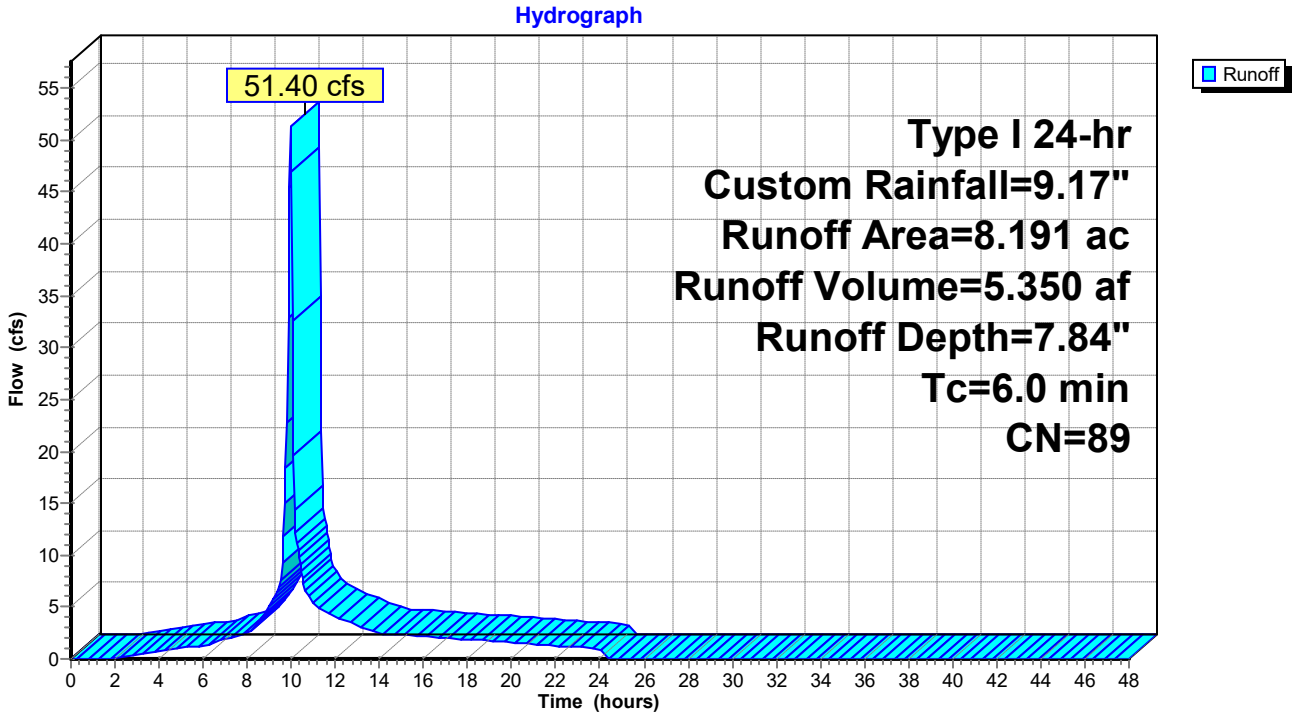
Runoff = 51.40 cfs @ 9.95 hrs, Volume= 5.350 af, Depth= 7.84"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	8.191	89	PHASE 7
	8.191		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 20S: BASIN P7



Summary for Subcatchment 21S: BASIN P8a

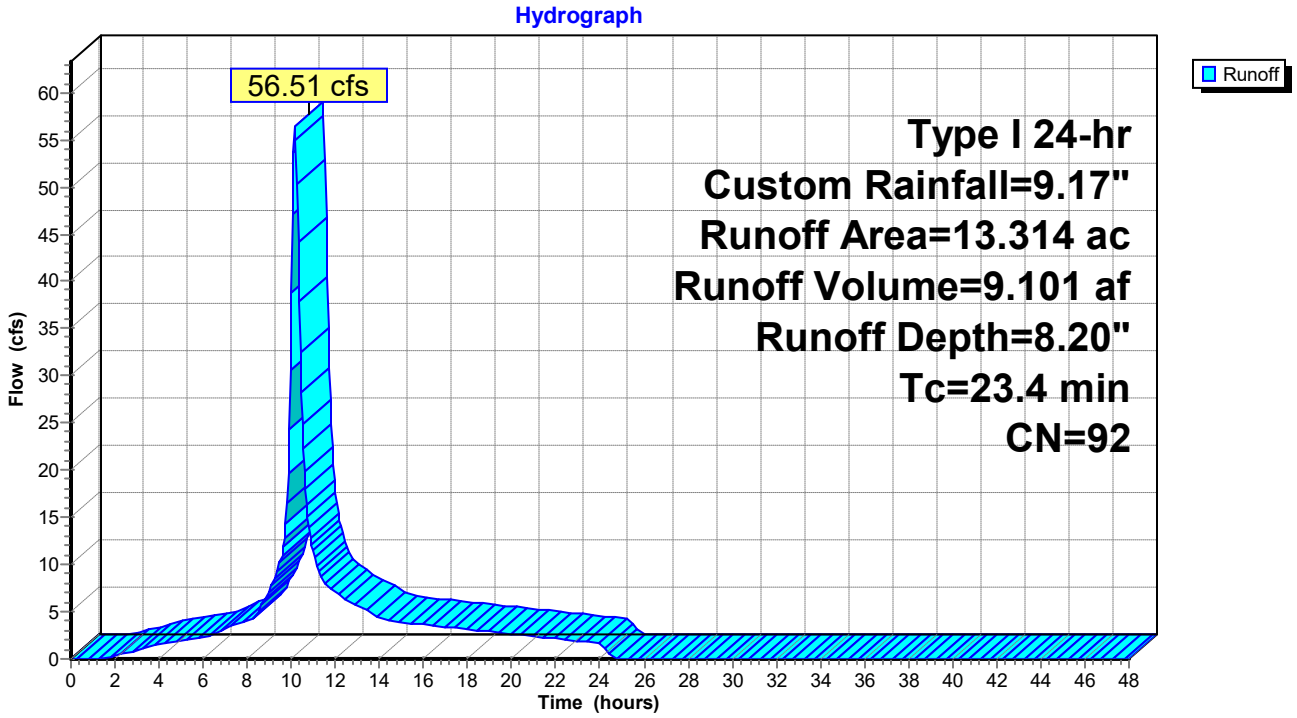
Runoff = 56.51 cfs @ 10.16 hrs, Volume= 9.101 af, Depth= 8.20"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	13.314	92	PHASE 8
	13.314		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.4					**Direct Entry,**

Subcatchment 21S: BASIN P8a



Summary for Subcatchment 22S: BASIN P8b

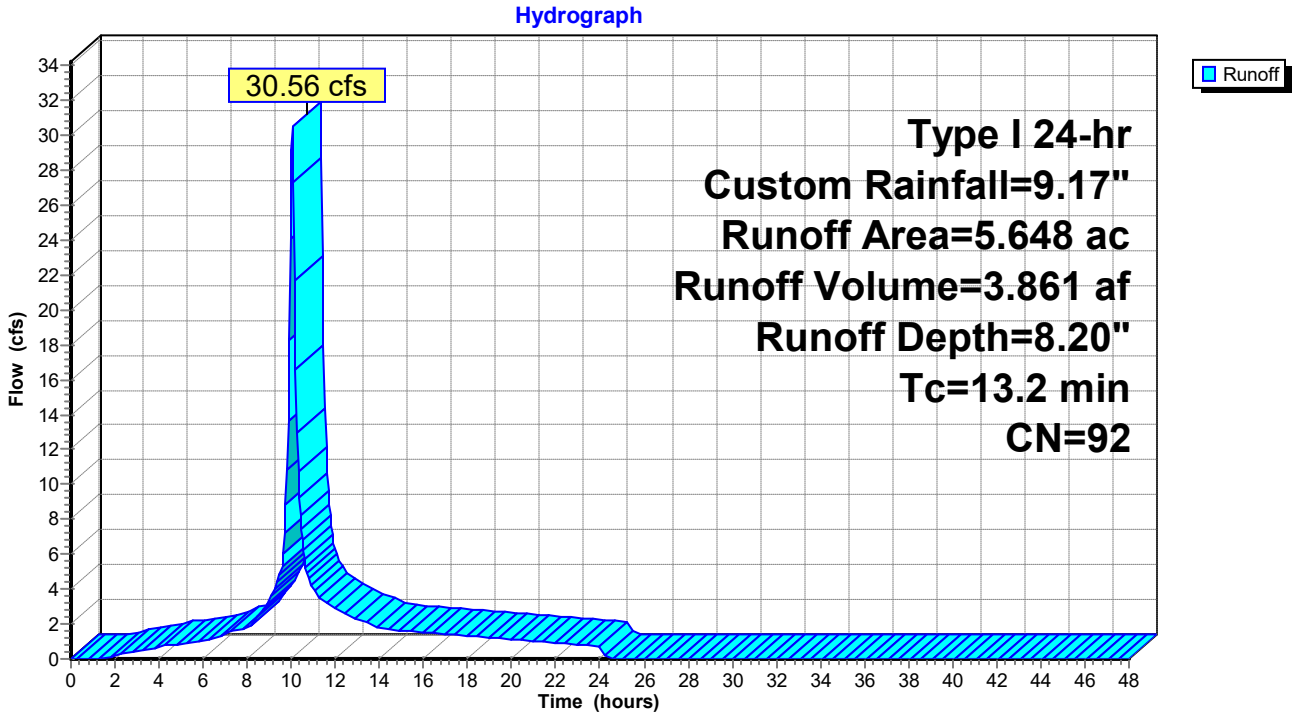
Runoff = 30.56 cfs @ 10.04 hrs, Volume= 3.861 af, Depth= 8.20"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	5.648	92	PHASE 8
	5.648		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2					**Direct Entry,**

Subcatchment 22S: BASIN P8b



Summary for Subcatchment 23S: BASIN P9a

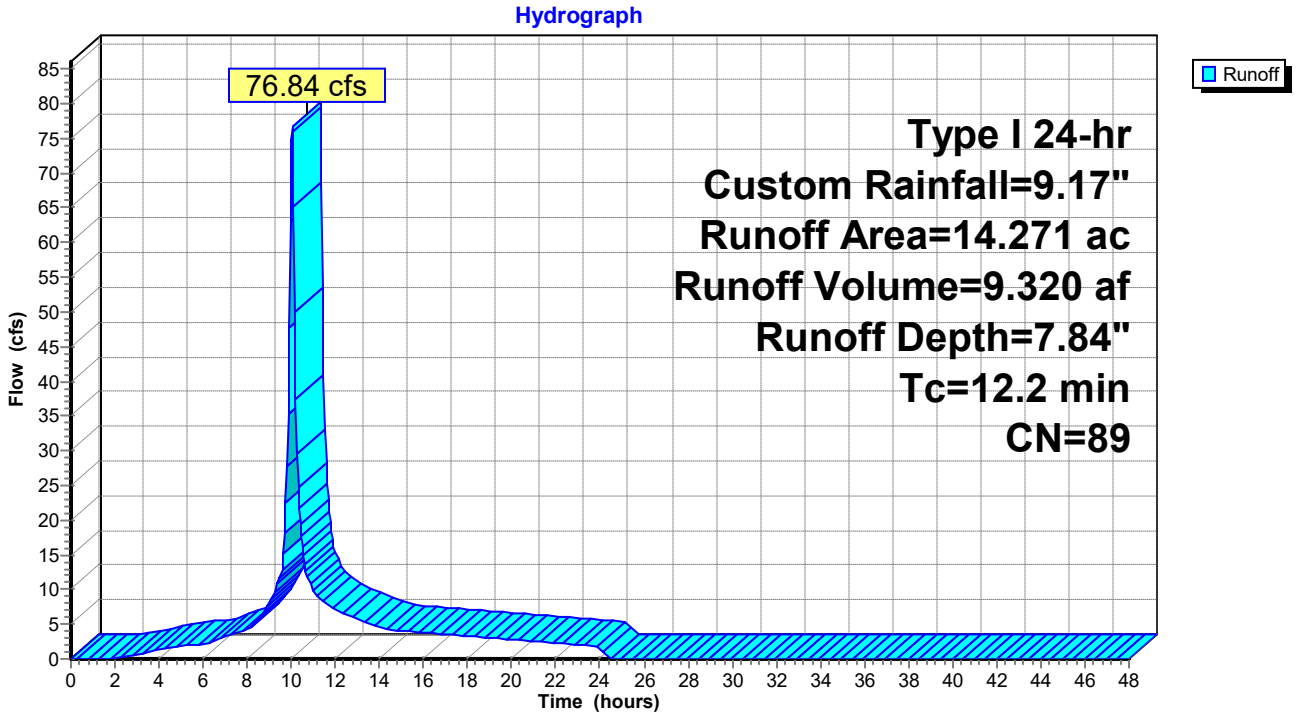
Runoff = 76.84 cfs @ 10.03 hrs, Volume= 9.320 af, Depth= 7.84"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	14.271	89	PHASE 9
	14.271		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2					**Direct Entry,**

Subcatchment 23S: BASIN P9a



Summary for Subcatchment 24S: BASIN P9b

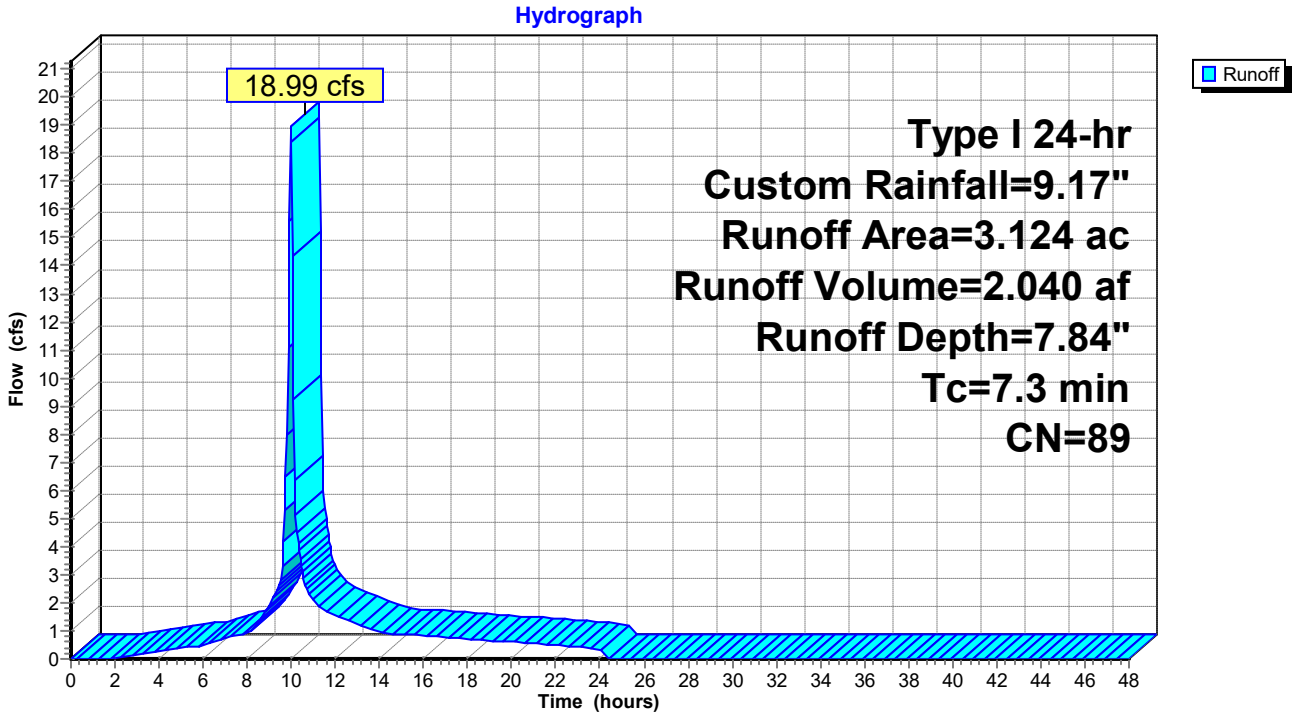
Runoff = 18.99 cfs @ 9.97 hrs, Volume= 2.040 af, Depth= 7.84"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	3.124	89	PHASE 9
	3.124		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3					**Direct Entry,**

Subcatchment 24S: BASIN P9b



Summary for Subcatchment 25S: BASIN P9c

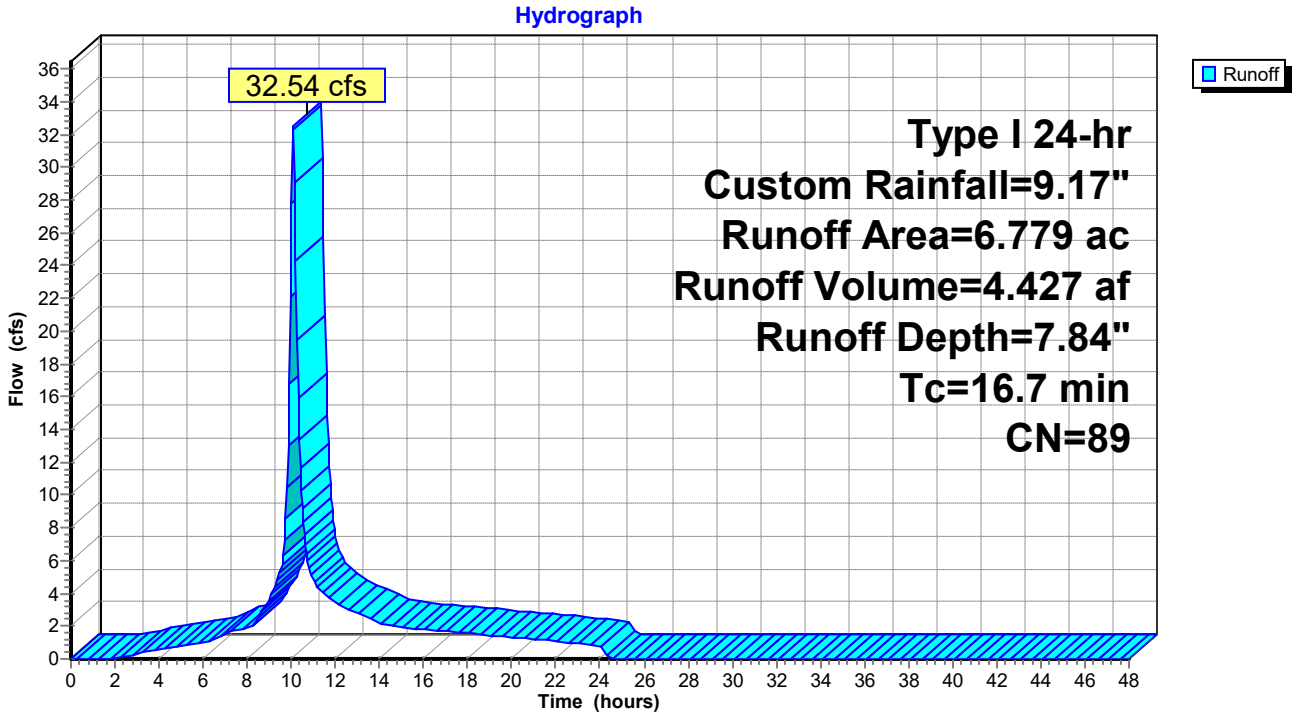
Runoff = 32.54 cfs @ 10.08 hrs, Volume= 4.427 af, Depth= 7.84"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	6.779	89	PHASE 9
	6.779		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.7					**Direct Entry,**

Subcatchment 25S: BASIN P9c



Summary for Subcatchment 26S: BASIN W1

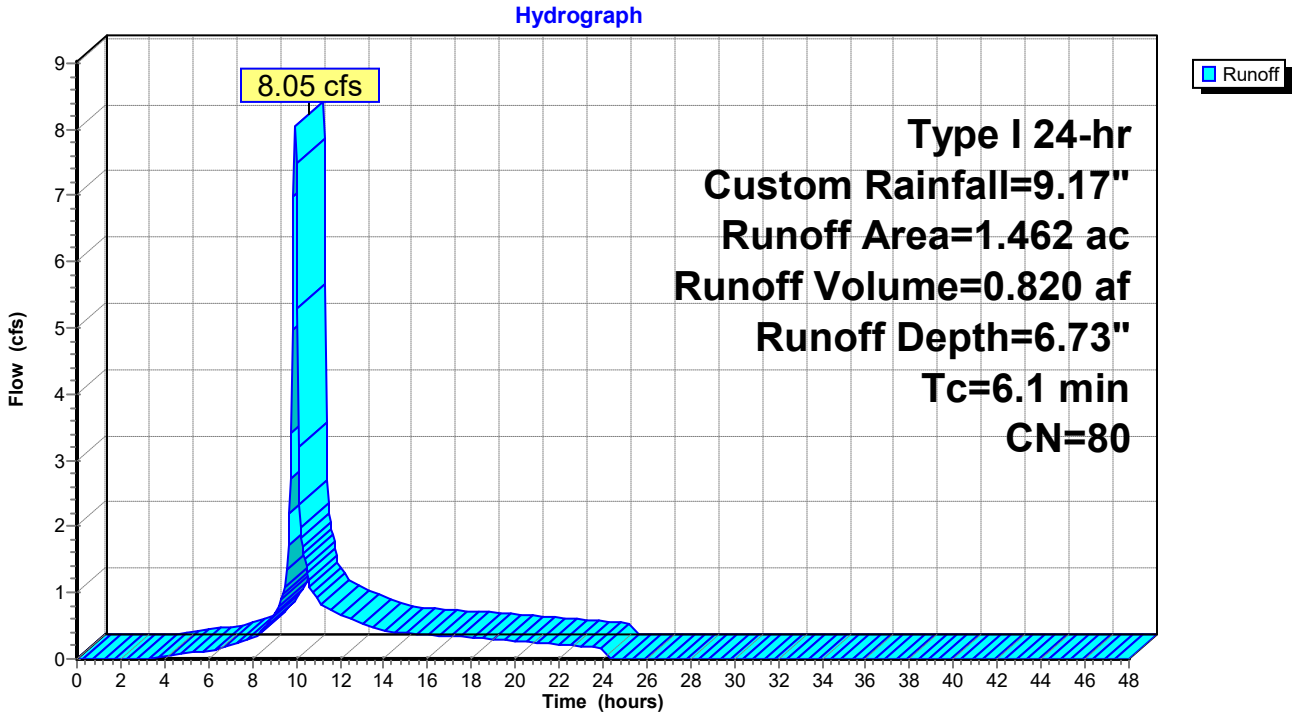
Runoff = 8.05 cfs @ 9.96 hrs, Volume= 0.820 af, Depth= 6.73"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	1.462	80	POTENTIAL WWTP
	1.462		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1					**Direct Entry,**

Subcatchment 26S: BASIN W1



Summary for Subcatchment 27S: BASIN B2

[49] Hint: Tc<2dt may require smaller dt

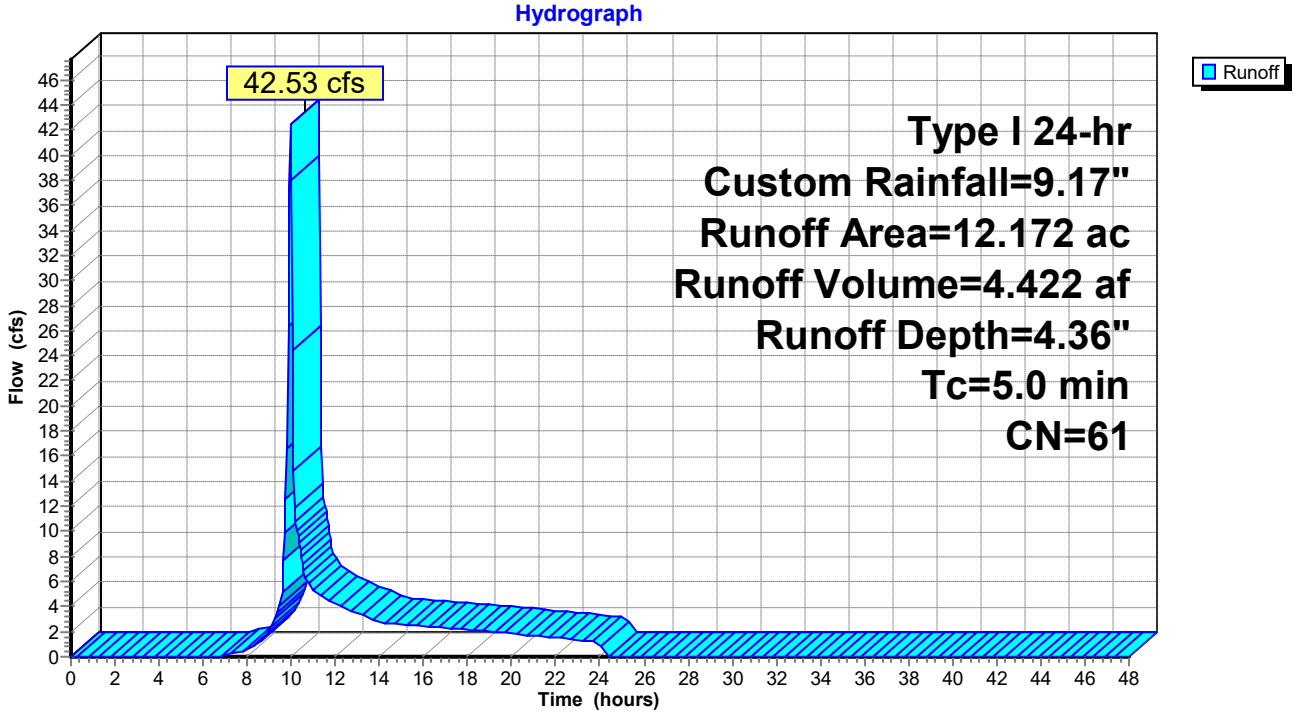
Runoff = 42.53 cfs @ 9.95 hrs, Volume= 4.422 af, Depth= 4.36"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	12.172	61	DRAINAGE BASIN B2
	12.172		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 27S: BASIN B2



Summary for Subcatchment 28S: BASIN O1

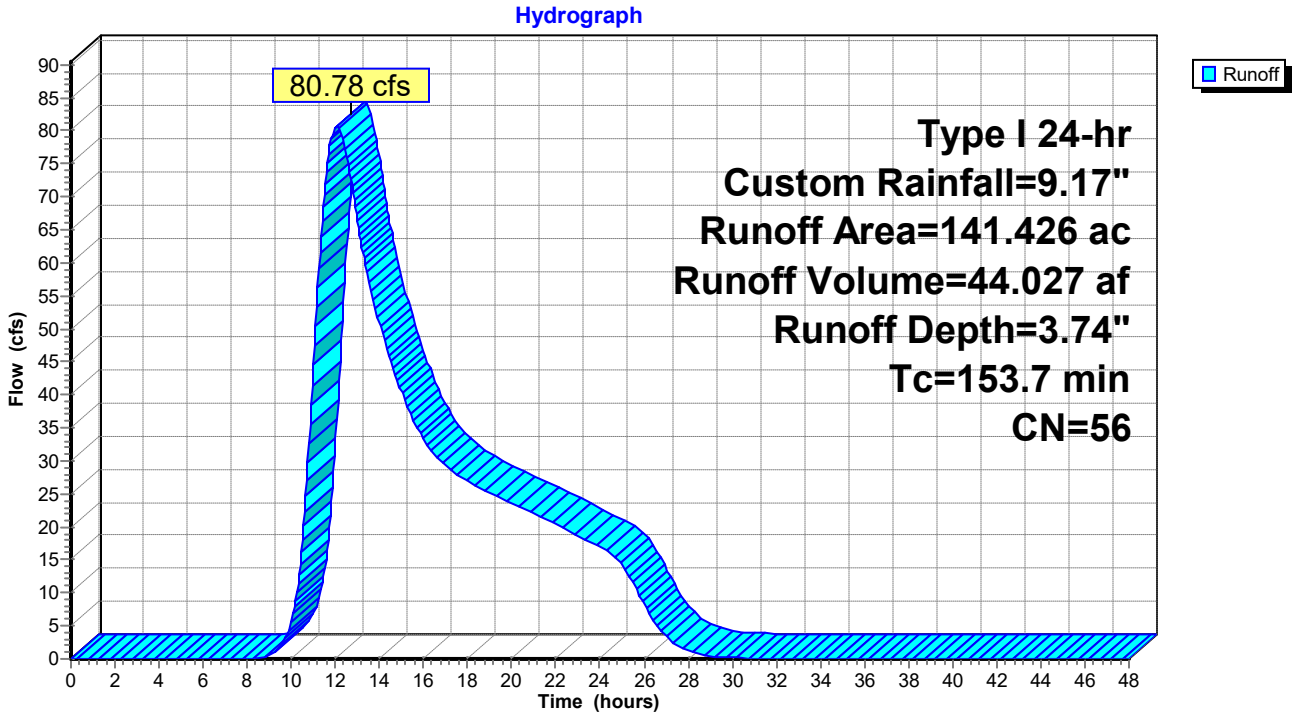
Runoff = 80.78 cfs @ 12.11 hrs, Volume= 44.027 af, Depth= 3.74"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

	Area (ac)	CN	Description
*	141.426	56	
	141.426		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
153.7					**Direct Entry,**

Subcatchment 28S: BASIN O1



Summary for Subcatchment 29S: BASIN O2

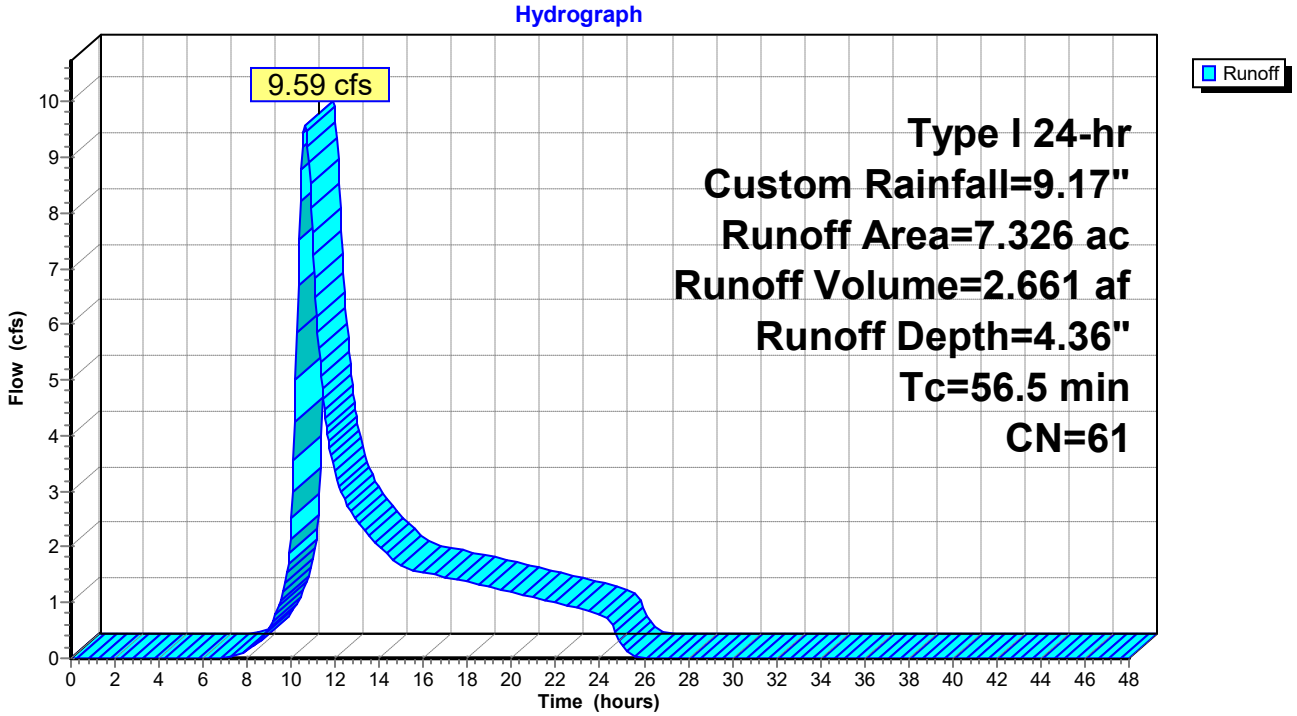
Runoff = 9.59 cfs @ 10.62 hrs, Volume= 2.661 af, Depth= 4.36"
Routed to Pond 11P : DETENTION PONDS B2A/B COMBINED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type I 24-hr Custom Rainfall=9.17"

Area (ac)	CN	Description
0.563	98	Paved roads w/curbs & sewers, HSG B
6.763	58	Meadow, non-grazed, HSG B
7.326	61	Weighted Average
6.763		92.32% Pervious Area
0.563		7.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
56.5					**Direct Entry,**

Subcatchment 29S: BASIN O2



Summary for Pond 11P: DETENTION PONDS B2A/B COMBINED

Inflow Area = 318.839 ac, 0.46% Impervious, Inflow Depth = 5.77" for Custom event
Inflow = 747.62 cfs @ 10.03 hrs, Volume= 153.361 af
Outflow = 5.63 cfs @ 26.46 hrs, Volume= 4.212 af, Atten= 99%, Lag= 985.7 min
Primary = 5.63 cfs @ 26.46 hrs, Volume= 4.212 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 44.20' @ 26.46 hrs Surf.Area= 9.367 ac Storage= 151.747 af

Plug-Flow detention time= 1,575.7 min calculated for 4.212 af (3% of inflow)
Center-of-Mass det. time= 1,031.9 min (1,840.3 - 808.4)

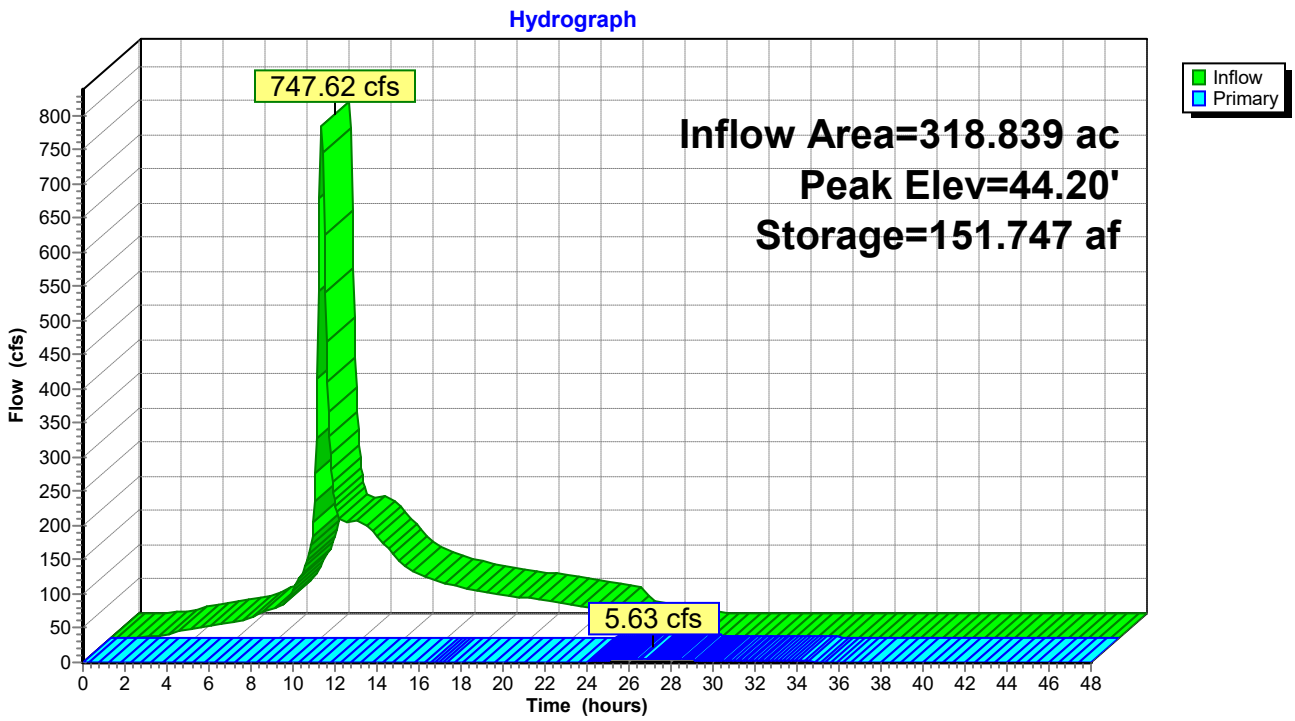
Volume	Invert	Avail.Storage	Storage Description
#1	20.00'	168.994 af	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
20.00	3.178	0.000	0.000	3.178
22.00	3.599	6.773	6.773	3.604
24.00	4.023	7.618	14.391	4.033
26.00	4.449	8.468	22.859	4.464
28.00	4.879	9.325	32.184	4.901
30.00	5.313	10.189	42.373	5.341
32.00	6.628	11.917	54.290	6.659
34.00	7.071	13.697	67.986	7.111
36.00	7.517	14.586	82.572	7.566
38.00	7.964	15.479	98.051	8.023
40.00	8.415	16.377	114.428	8.484
42.00	8.867	17.280	131.708	8.947
44.00	9.322	18.187	149.895	9.414
46.00	9.779	19.099	168.994	9.883

Device	Routing	Invert	Outlet Devices
#1	Primary	35.00'	**42.0" Round Culvert** L= 71.4' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.00' / 33.20' S= 0.0252 '/' Cc= 0.900 n= 0.013, Flow Area= 9.62 sf
#2	Device 1	40.00'	**4.0" Vert. Side Opening 40** C= 0.600 Limited to weir flow at low heads
#3	Device 1	44.00'	**48.0" x 48.0" Horiz. Overflow Area Drain** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.46 cfs @ 26.46 hrs HW=44.20' (Free Discharge)
└─**1=Culvert** (Passes 5.46 cfs of 99.81 cfs potential flow)
  ├─**2=Side Opening 40** (Orifice Controls 0.84 cfs @ 9.67 fps)
  └─**3=Overflow Area Drain** (Weir Controls 4.62 cfs @ 1.46 fps)

Pond 11P: DETENTION PONDS B2A/B COMBINED



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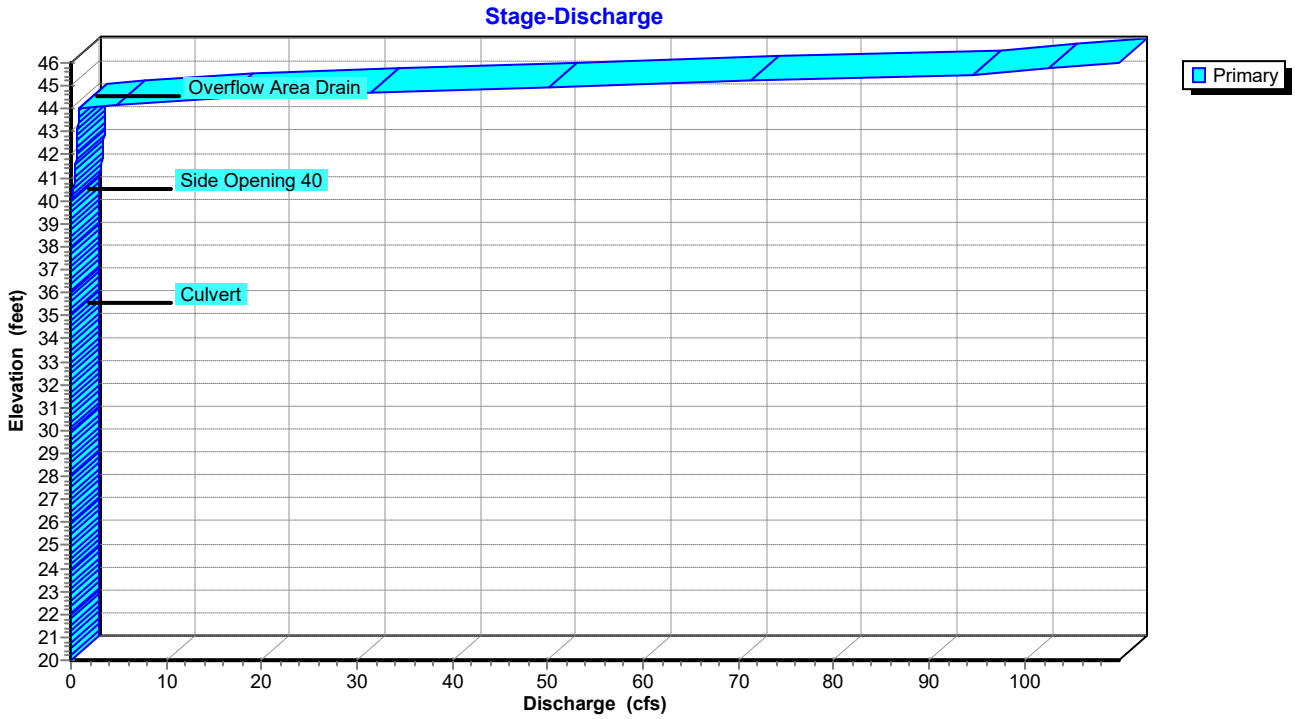

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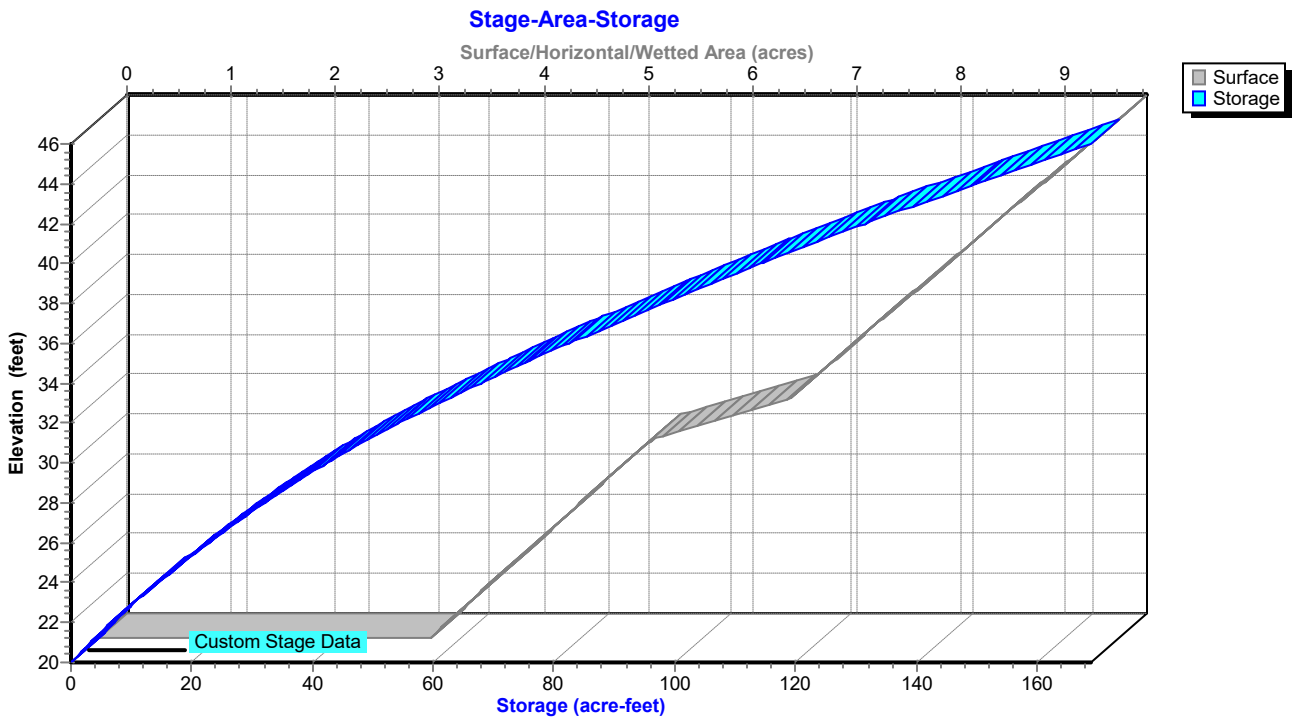

APPENDIX 'D' – PRELIMINARY WATER SYSTEM CALCULATIONS AND PLANS

PRELIMINARY WATER MASTER PLAN

OVERALL MASTER PLAN

PIONEER DESIGN GROUP – HAWAII LLC
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Reviewed by	TCC	**Date** 12/2025
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Vert. Scale:		

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No.
H109-001

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Sheet
1 of 5

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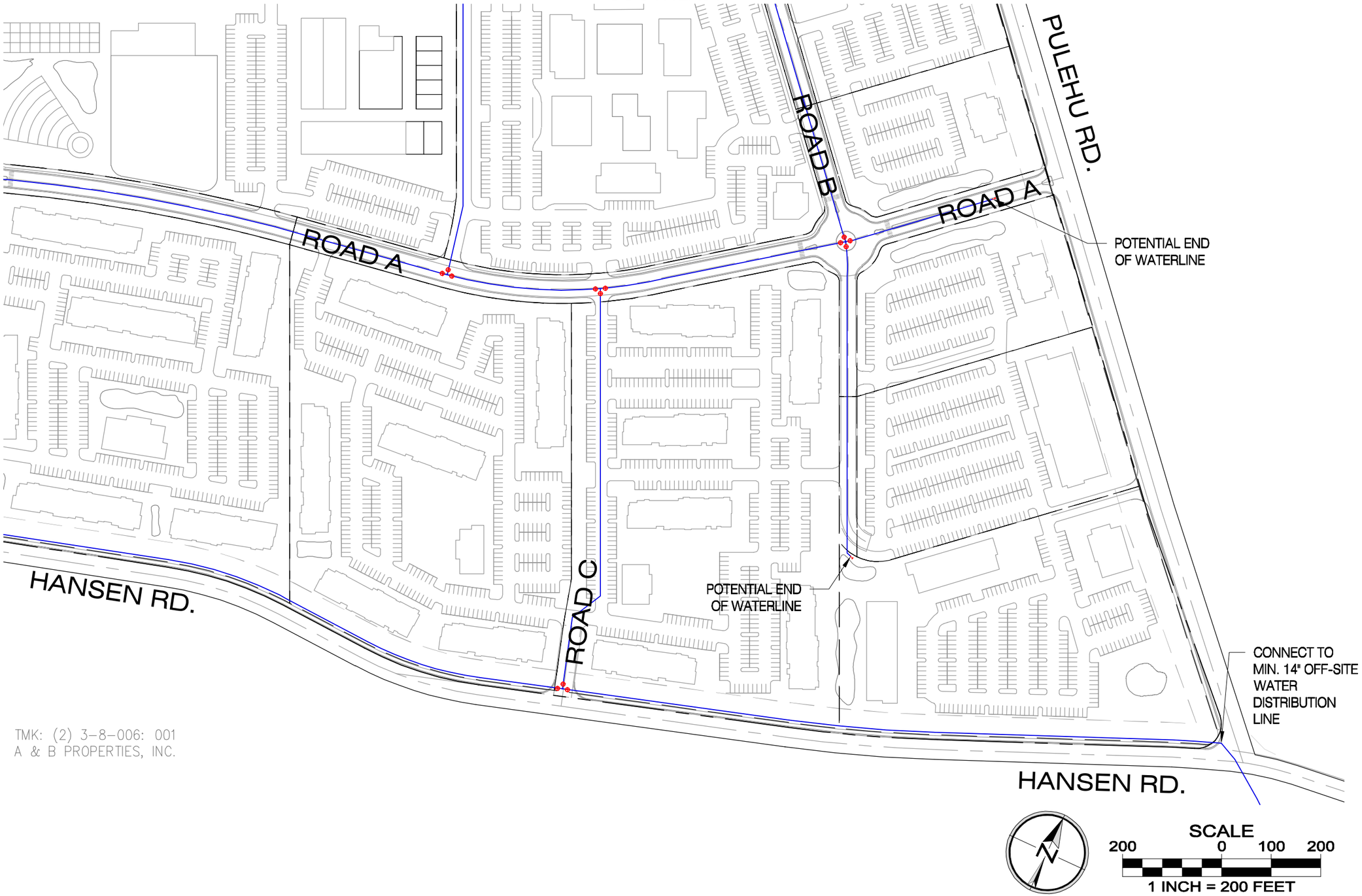
PRELIMINARY WATER MASTER PLAN

SOUTHEAST



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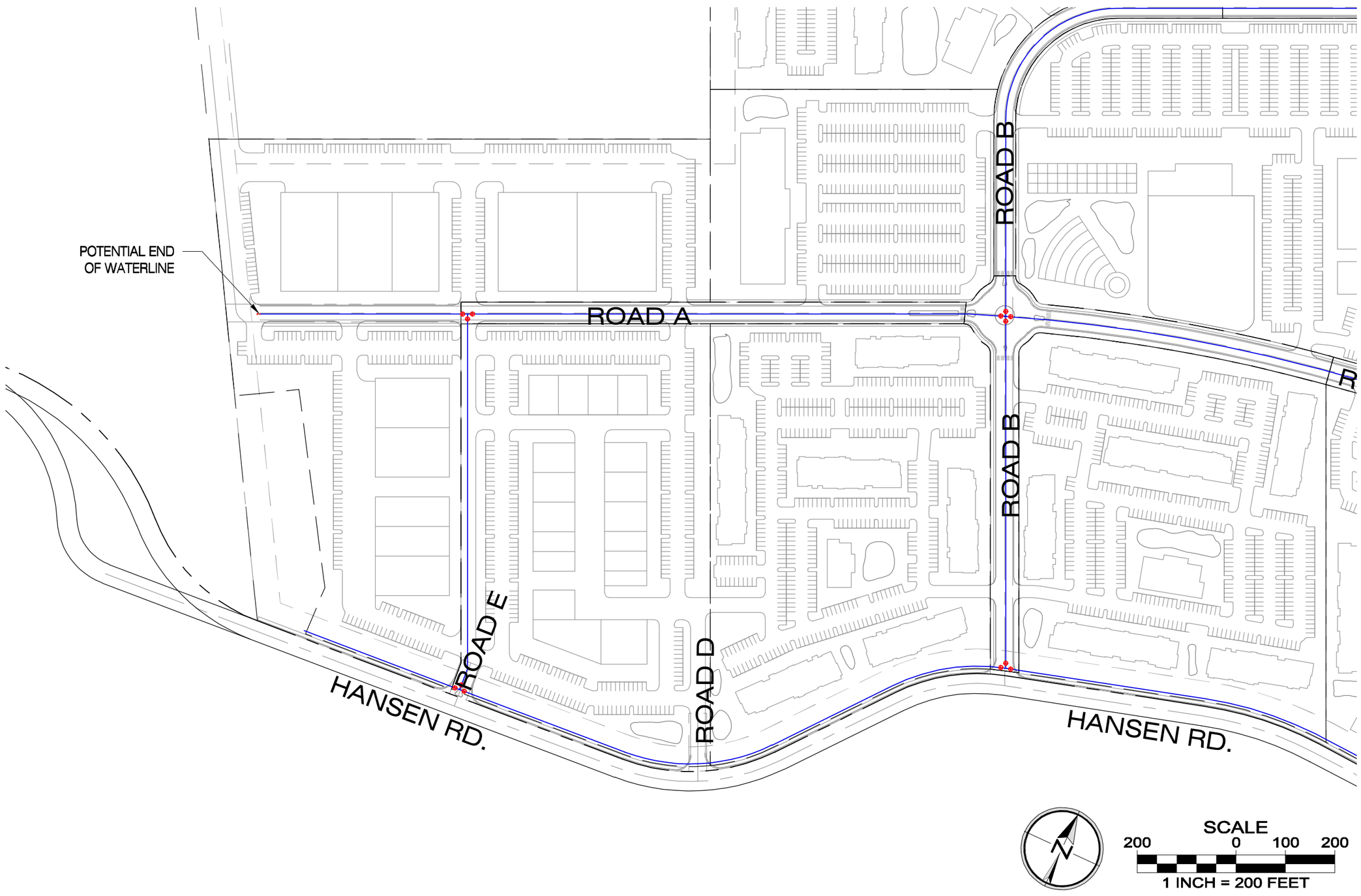
PRELIMINARY WATER MASTER PLAN

SOUTHWEST



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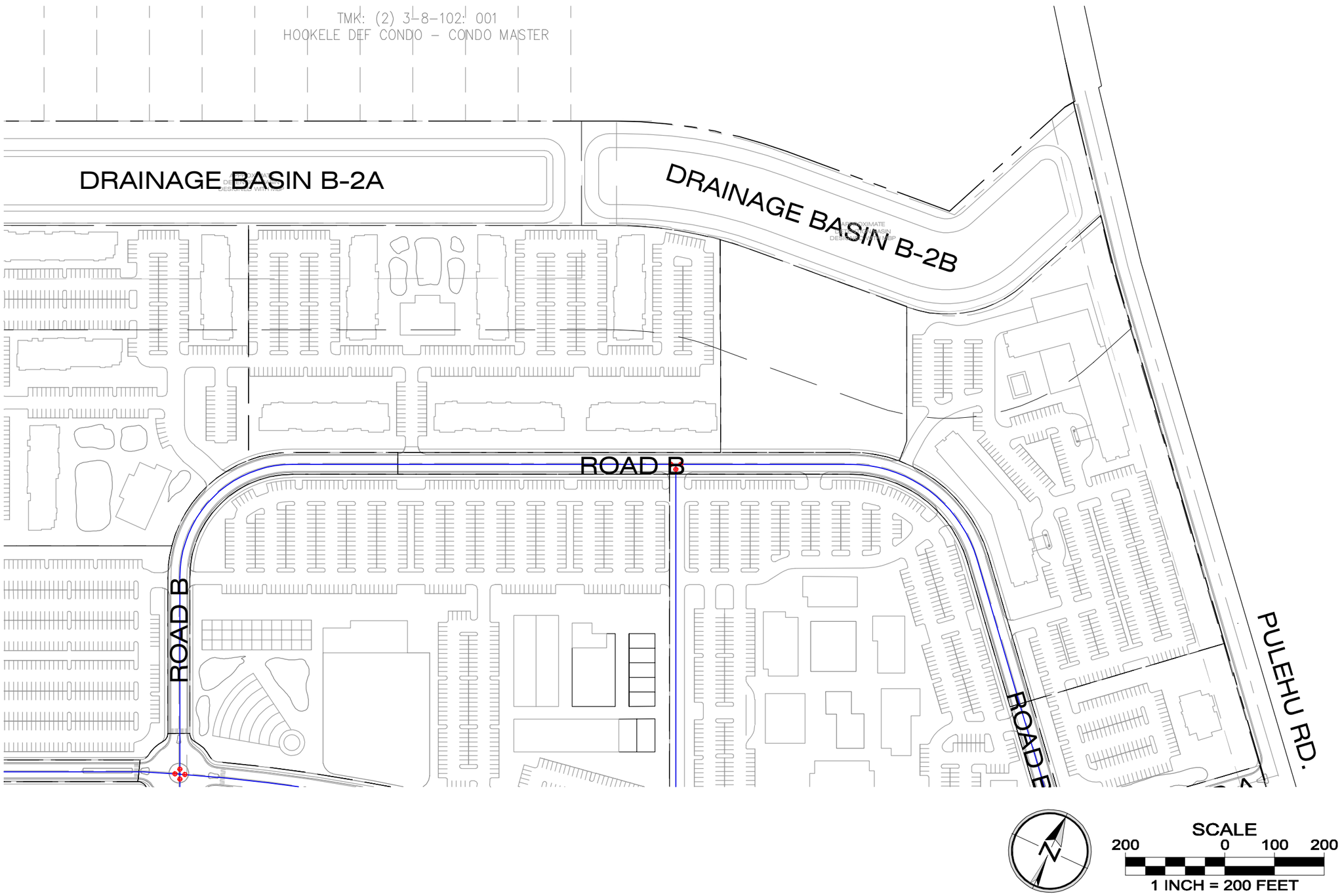
PRELIMINARY WATER MASTER PLAN

NORTHEAST



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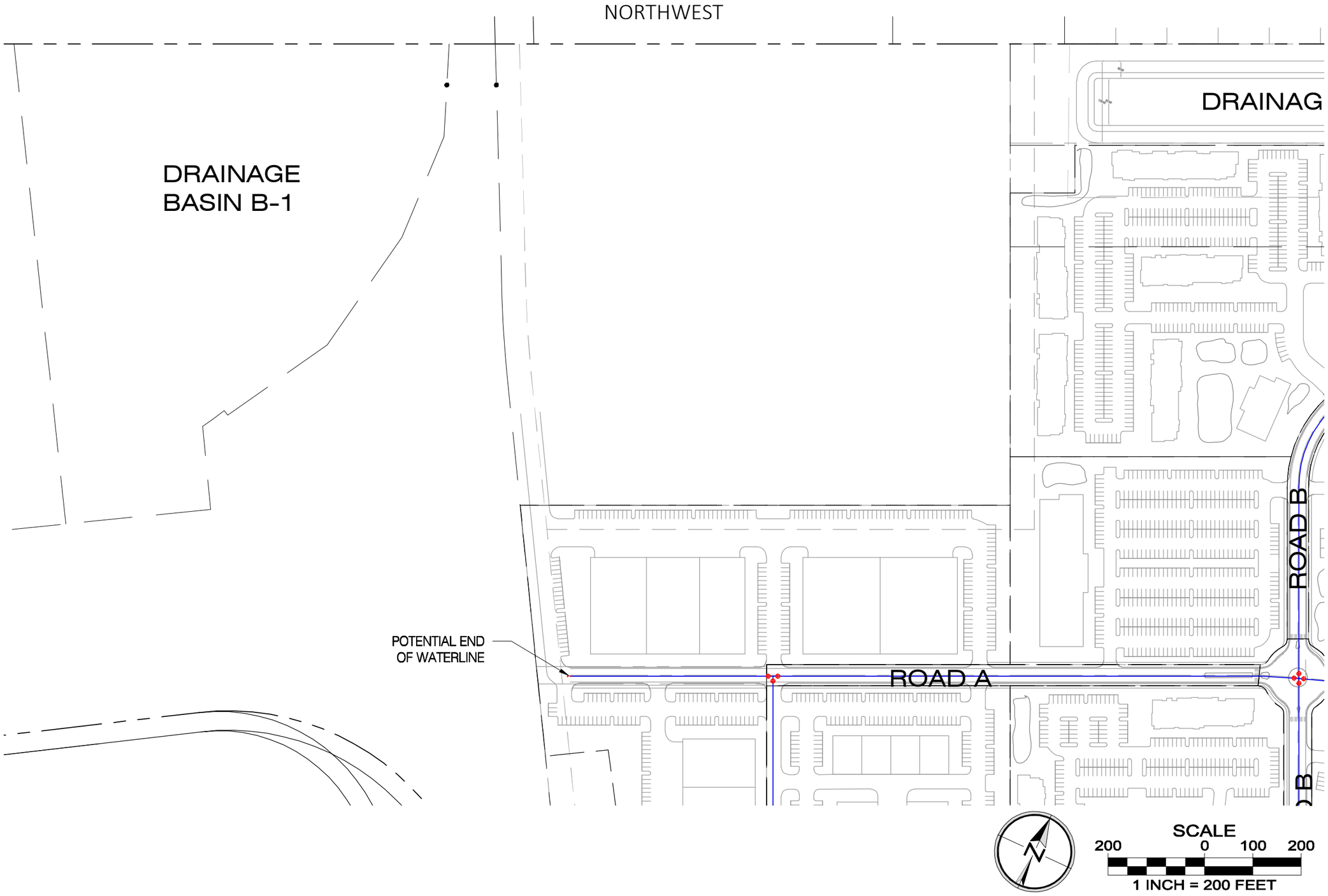
PRELIMINARY WATER MASTER PLAN



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PRELIMINARY WATER MASTER PLAN

PHASE 1

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PRELIM WATER PHASE 1

Project
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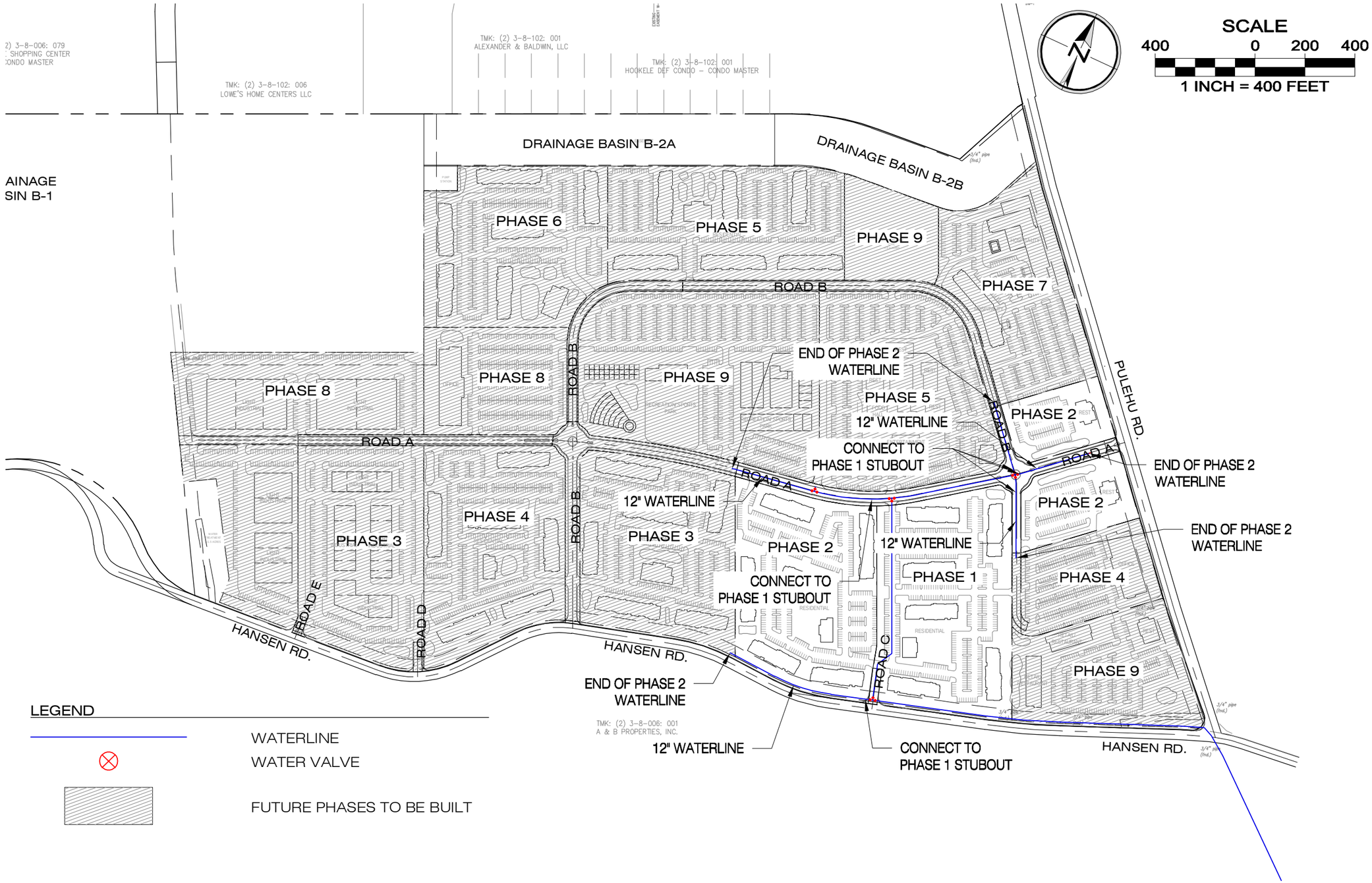
PRELIMINARY WATER MASTER PLAN

PHASE 2



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PRELIM WATER PHASE 2

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PRELIMINARY WATER MASTER PLAN

PHASE 3

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PRELIM WATER PHASE 3

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PRELIMINARY WATER MASTER PLAN

PHASE 4

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PRELIM WATER PHASE 4

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PRELIMINARY WATER MASTER PLAN

PHASE 5

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PRELIM WATER PHASE 5

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PRELIMINARY WATER MASTER PLAN

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PRELIM WATER PHASE 6

Project
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PRELIMINARY WATER MASTER PLAN

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PRELIM WATER PHASE 7

Project
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PRELIMINARY WATER MASTER PLAN

PHASE 8

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PRELIM WATER PHASE 8

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PRELIMINARY WATER MASTER PLAN

PHASE 9

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Horiz. Scale:	1" = 400'		
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PRELIM WATER PHASE 9

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9 of 9

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Table 100-18 - DOMESTIC CONSUMPTION GUIDELINES				
AVERAGE DAILY DEMAND*				
ZONING DESIGNATION	HAWAII	KAUAI	MAUI	OAHU
RESIDENTIAL:				
Single Family or Duplex	400 gals/unit	500 gals/unit	600 gals/unit or 3000 gals/acre	500 gals/unit or 2500 gals/acre
Multi-Family Low Rise	400 gals/unit	350 gals/unit	560 gals/unit or 5000 gals/acre	400 gals/unit or 4000 gals/acre
Multi-Family High Rise	400 gals/unit	350 gals/unit	560 gals/unit	300 gals/unit
COMMERCIAL:				
Commercial Only	3000 gals/acre	3000 gals/acre	6000 gals/acre	3000 gals/acre
Commercial/Industrial Mix	--	5000 gals/acre	140 gals/1000 sq. ft.	100 gals/1000 sq. ft.
Commercial/Residential Mix	--	3000 gals/acre	140 gals/1000 sq. ft.	120 gals/1000 sq. ft.
RESORT (To include hotel for Maui only)	400 gals/unit (1)	350 gals/unit	350 gals/unit or 17000 gals/acre	350 gals/unit or 4000 gals/acre
LIGHT INDUSTRY:	4000 gals/acre	4000 gals/acre	6000 gals/acre	4000 gals/acre
SCHOOLS, PARKS:	4000 gals/acre or 60 gals/student	4000 gals/acre or 60 gals/student	1700 gals/acre ~~or 60 gals/student~~	4000 gals/acre or 60 gals/student
AGRICULTURE:		2,500 gals/acre	~~5000 gals/acre~~	4000 gals/acre

* - Where two or more figures are listed for the same zoning, the daily demand resulting in higher consumption use shall govern the design unless specified otherwise.

(1) - Subject to special review and control by the Manager.

Table 100-19 - FIRE FLOW REQUIREMENTS

LAND USE	FLOW (GPM)/DURATION (HRS)/FIRE HYDRANT SPACING (FT.)			
	HAWAII	KAUAI	MAUI	OAHU
Agriculture	500/0.5/600 (1)	250/1/500	500/2/500	1000/0.5/700
Rural			1000/2/500	
Single Family	(2)	(4)	1000/2/350	1000/1/350
Duplex	1500/1/300	(4)	1250/2/350	1000/1/350
PUD Townhouse and Low Rise Apartments	1500/1/300	(4)	(5)	1500/1/250
Schools, Neighborhood Businesses, Small Shopping Centers, Hotels (except Maui), and High Rise Apartments	2000/2/300	2000/2/350	2000/2/250	2000/2/250
Light Industry, Downtown Business, Large Shopping Center, and Hospitals	2,000/2/300	3000/3/350	2000/2/250	4000/3/250
Heavy Industry, Hotels	2,000/2/300	3000/3/350	2,500/2/ 250	(3)

(1) - Applies to one acre lot size or less
(2) - 10,000 sq. ft. or larger lot size = 500/2/600; Less than 10,000 sq. ft. lot size = 1000/1/600
(3) - Subject to special review and control by Manager
(4) - R-2 = 500/1/500 R-4 = 750/2/500 R-6 = 1000/2/500 R-10 = 1250/2/350
R-20 = 1500/2/350 RR-10 = 1500/2/350 RR-20 = 2000/2/350
(5) - A-1 = 1500/2/250 A-2 = 2000/2/250

Note:
1. On dead end streets, the last F.H. shall be located at one half the spacing distance for F.H.s from the last house/unit (frontage property line or to the driveway/access for the property).
2. Spacing of fire hydrant shall be measured along the roadway.

DOMESTIC PRIVATE WATER SYSTEM CALCULATIONS

JOB NUMBER: H109-001
PROJECT: Ho'onani Village Development
FILE: Private Water System Calculations.xlsx

TYPE OF USE	PROJECT QUANTITY	UNIT	AVERAGE DAILY DEMAND	UNIT	AVERAGE DAILY DEMAND (ADD) (GPD)	AVERAGE DAILY FLOW (GPM)	MAX DAILY DEMAND (1.5*ADD) (GPD)	MAX DAILY FLOW (GPM)	PEAK HOUR DEMAND (3*ADD) (GPD)	PEAK HOUR FLOW (GPM)
Phase 1 - Residential	268	Units	400	gal/unit	107,200	74.44	160,800	111.67	321,600	223.33
Phase 1 - Irrigation	3.77	Acres	1,700	gal/acre	6,409	4.45	9,614	6.68	19,227	13.35
Phase 1 Total					**113,609**	**78.90**	**170,414**	**118.34**	**340,827**	**236.69**
Phase 2 - Residential	268	Units	400	gal/unit	107,200	74.44	160,800	111.67	321,600	223.33
Phase 2 - Commercial (Retail & Restaurant)	0.230	Acres	6,000	gal/acre	1,377	0.96	2,066	1.43	4,132	2.87
Phase 2 - Irrigation	4.77	Acres	1,700	gal/acre	8,109	5.63	12,164	8.45	24,327	16.89
Phase 2 Total					**116,686**	**81.03**	**175,030**	**121.55**	**350,059**	**243.10**
Phase 3 - Residential	268	Units	400	gal/unit	107,200	74.44	160,800	111.67	321,600	223.33
Phase 3 - Commercial (Light Industrial)	1.722	Acres	6,000	gal/acre	10,331	7.17	15,496	10.76	30,992	21.52
Phase 3 - Irrigation	4.96	Acres	1,700	gal/acre	8,432	5.86	12,648	8.78	25,296	17.57
Phase 3 Total					**125,963**	**87.47**	**188,944**	**131.21**	**377,888**	**262.42**
Phase 4 - Residential	268	Units	400	gal/unit	107,200	74.44	160,800	111.67	321,600	223.33
Phase 4 - Commercial (Office)	1.033	Acres	6,000	gal/acre	6,198	4.30	9,298	6.46	18,595	12.91
Phase 4 - Irrigation	4.6	Acres	1,700	gal/acre	7,820	5.43	11,730	8.15	23,460	16.29
Phase 4 Total					**121,218**	**84.18**	**181,828**	**126.27**	**363,655**	**252.54**
Phase 5 - Residential	268	Units	400	gal/unit	107,200	74.44	160,800	111.67	321,600	223.33
Phase 5 - Commercial (Retail, Restaurant, Entertainment)	0.803	Acres	6,000	gal/acre	4,821	3.35	7,231	5.02	14,463	10.04
Phase 5 - Irrigation	6.63	Acres	1,700	gal/acre	11,271	7.83	16,907	11.74	33,813	23.48
Phase 5 Total					**123,292**	**85.62**	**184,938**	**128.43**	**369,876**	**256.86**
Phase 6 - Residential	268	Units	400	gal/unit	107,200	74.44	160,800	111.67	321,600	223.33
Phase 6 - Irrigation	3.56	Acres	1,700	gal/acre	6,052	4.20	9,078	6.30	18,156	12.61
Phase 6 Total					**113,252**	**78.65**	**169,878**	**117.97**	**339,756**	**235.94**
Phase 7 - Commercial (Hospitality)	240	Units	350	gal/unit	84,000	58.33	126,000	87.50	252,000	175.00
Phase 7 - Irrigation	2.05	Acres	1,700	gal/acre	3,485	2.42	5,228	3.63	10,455	7.26
Phase 7 Total					**87,485**	**60.75**	**131,228**	**91.13**	**262,455**	**182.26**
Phase 8 - Commercial (Light Industrial, Office)	235,000	sqft	140	gal/1000 sqft.	32,900	22.85	49,350	34.27	98,700	68.54
Phase 8 - Irrigation	1.41	Acres	1,700	gal/acre	2,397	1.66	3,596	2.50	7,191	4.99
Phase 8 Total					**35,297**	**24.51**	**52,946**	**36.77**	**105,891**	**73.54**
Phase 9 - Commercial	25	Acres	6,000	gal/acre	150,000	104.17	225,000	156.25	450,000	312.50
Phase 9 - Irrigation	6.25	Acres	1,700	gal/acre	10,625	7.38	15,938	11.07	31,875	22.14
Phase 9 Total					**160,625**	**111.55**	**240,938**	**167.32**	**481,875**	**334.64**

Project Total - Residential					**643,200**	**447**	**964,800**	**670**	**1,929,600**	**1,340**
Project Total - Commercial					**289,627**	**201**	**434,441**	**302**	**868,882**	**603**
Project Total - Irrigation					**64,600**	**45**	**96,900**	**67**	**193,800**	**135**
Project Total					**997,427**	**693**	**1,496,141**	**1,039**	**-**	**2,078**
Project Total (increased by 10% to account for unmetered uses and losses)					**1,097,170**	**762**	**1,645,755**	**1,143**	**-**	**2,286**

PIONEER DESIGN GROUP-HAWAI'I

DOMESTIC WATER SYSTEM PIPE SIZE CALCULATIONS

JOB NUMBER:	H109-001
PROJECT:	Ho'onani Village Development
FILE:	Private Water System Calculations.xlsx

1. Max velocity in main line 5 ft/sec

Peak Hour Flow Rate (gpm)	2,286	gpm
Peak Hour Flow Rate (cfs)	5.093	cfs

PIPE SIZE (in)	AREA OF PIPE (sf)	VELOCITY (ft/s)
6	0.20	25.94
8	0.35	14.59
12	0.79	6.48
14	1.07	4.76
16	1.40	3.65
18	1.77	2.88

FIRE SYSTEM CALCULATIONS

JOB NUMBER:	H109-001
PROJECT:	Ho'onani Village Development
FILE:	Private Water System Calculations.xlsx

1. Fire flow requirements:	2000	gpm for 2 hr
2. Max velocity in main line:	10	ft/sec

Flow Rate (gpm)	2,000	gpm
Flow Rate (cfs)	4.456	cfs

PIPE SIZE (in)	AREA OF PIPE (sf)	VELOCITY (ft/s)
6	0.20	22.69
8	0.35	12.77
12	0.79	5.67
14	1.07	4.17
16	1.40	3.19
18	1.77	2.52

PIONEER DESIGN GROUP-HAWAI'I

RESERVOIR CAPACITY SIZING CALCULATIONS

JOB NUMBER:	H109-001
PROJECT:	Ho'onani Village Development
FILE:	Private Water System Calculations.xlsx

Criteria:

1. Must meet maximum daily demand: **1,645,755** **gal**

2. Meet maximum daily demand plus fire flow for duration of fire. Assuming the reservoir is 3/4 full at the start of the fire and ignoring pump input credits for factor of safety.

TYPE	DURATION (hrs)	FLOW (gpm)	VOLUME (gal)
Domestic	2	1,143	137,146
Fire	2	2,000	240,000
Volume needed at 3/4 full			**377,146**
Total Reservoir Volume			**502,862**

Since 502,862 < 1,645,755 gal, total reservoir storage will need to be over 1,645,755 gal.

PIONEER DESIGN GROUP - HAWAII

DOMESTIC WATER SYSTEM CALCULATIONS

(ESD METHODOLOGY FOR RESIDENTIAL USES)

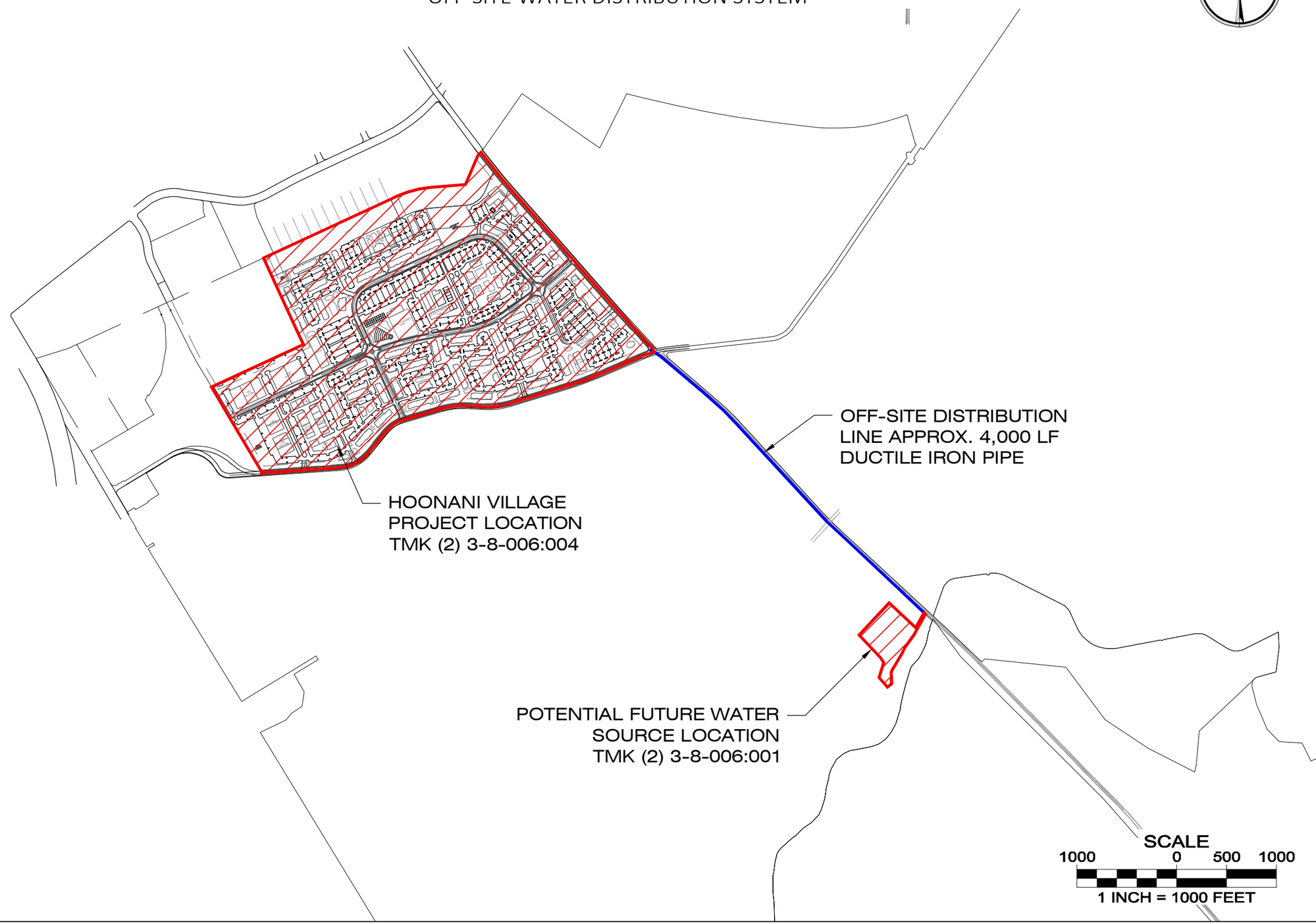
JOB NUMBER: H109-001
PROJECT: Ho'onani Village Development
FILE: Private Water System Calculations.xlsx

TYPE OF USE	PROJECT QUANTITY	UNIT	AVERAGE DAILY DEMAND	UNIT	AVERAGE DAILY DEMAND (ADD) (GPD)	AVERAGE DAILY FLOW (GPM)	MAX DAILY DEMAND (1.5*ADD) (GPD)	MAX DAILY FLOW (GPM)	PEAK HOUR DEMAND (3*ADD) (GPD)	PEAK HOUR FLOW (GPM)
Estimated Phase Unit Mix										
1 bedroom, 1 bathroom Unit (0.5 ESD)	90	Units	150	gal/unit	13,500	9.38	20,250	14.06	40,500	28.13
2 bedroom, 1 bathroom Unit (0.6 ESD)	144	Units	180	gal/uniit	25,920	18.00	38,880	27.00	77,760	54.00
3 bedroom, 2 bathroom Unit (0.9 ESD)	36	Units	270	gal/unit	9,720	6.75	14,580	10.13	29,160	20.25
Residential Phase Estimation Total					**49,140**	**24.75**	**53,460**	**37.13**	**106,920**	**74.25**
Phase 1 - Residential (See Esimated Mix above)					49,140	34.13	73,710	51.19	147,420	102.38
Phase 1 - Irrigation	3.77	Acres	1,700	gal/acre	6,409	4.45	9,614	6.68	19,227	13.35
Phase 1 Total					**55,549**	**38.58**	**83,324**	**57.86**	**166,647**	**115.73**
Phase 2 - Residential (See Esimated Mix above)					49,140	34.13	73,710	51.19	147,420	102.38
Phase 2 - Commercial (Retail & Restaurant)	0.230	Acres	6,000	gal/acre	1,377	0.96	2,066	1.43	4,132	2.87
Phase 2 - Irrigation	4.77	Acres	1,700	gal/acre	8,109	5.63	12,164	8.45	24,327	16.89
Phase 2 Total					**58,626**	**40.71**	**87,940**	**61.07**	**175,879**	**122.14**
Phase 3 - Residential (See Esimated Mix above)					49,140	34.13	73,710	51.19	147,420	102.38
Phase 3 - Commercial (Light Industrial)	1.722	Acres	6,000	gal/acre	10,331	7.17	15,496	10.76	30,992	21.52
Phase 3 - Irrigation	4.96	Acres	1,700	gal/acre	8,432	5.86	12,648	8.78	25,296	17.57
Phase 3 Total					**67,903**	**47.15**	**101,854**	**70.73**	**203,708**	**141.46**
Phase 4 - Residential (See Esimated Mix above)					49,140	34.13	73,710	51.19	147,420	102.38
Phase 4 - Commercial (Office)	1.033	Acres	6,000	gal/acre	6,198	4.30	9,298	6.46	18,595	12.91
Phase 4 - Irrigation	4.6	Acres	1,700	gal/acre	7,820	5.43	11,730	8.15	23,460	16.29
Phase 4 Total					**63,158**	**43.86**	**94,738**	**65.79**	**189,475**	**131.58**
Phase 5 - Residential (See Esimated Mix above)					49,140	34.13	73,710	51.19	147,420	102.38
Phase 5 - Commercial (Retail, Restaurant, Entertainment)	0.803	Acres	6,000	gal/acre	4,821	3.35	7,231	5.02	14,463	10.04
Phase 5 - Irrigation	6.63	Acres	1,700	gal/acre	11,271	7.83	16,907	11.74	33,813	23.48
Phase 5 Total					**65,232**	**45.30**	**97,848**	**67.95**	**195,696**	**135.90**
Phase 6 - Residential (See Esimated Mix above)					49,140	34.13	73,710	51.19	147,420	102.38
Phase 6 - Irrigation	3.56	Acres	1,700	gal/acre	6,052	4.20	9,078	6.30	18,156	12.61
Phase 6 Total					**55,192**	**38.33**	**82,788**	**57.49**	**165,576**	**114.98**
Phase 7 - Commercial (Hospitality)	240	Units	350	gal/unit	84,000	58.33	126,000	87.50	252,000	175.00
Phase 7 - Irrigation	2.05	Acres	1,700	gal/acre	3,485	2.42	5,228	3.63	10,455	7.26
Phase 7 Total					**87,485**	**60.75**	**131,228**	**91.13**	**262,455**	**182.26**
Phase 8 - Commercial (Light Industrial, Office)	235,000	sqft	140	gal/1000 sqft.	32,900	22.85	49,350	34.27	98,700	68.54
Phase 8 - Irrigation	1.41	Acres	1,700	gal/acre	2,397	1.66	3,596	2.50	7,191	4.99
Phase 8 Total					**35,297**	**24.51**	**52,946**	**36.77**	**105,891**	**73.54**

Phase 9 - Commercial	25	Acres	6,000	gal/acre	150,000	104.17	225,000	156.25	450,000	312.50
Phase 9 - Irrigation	6.25	Acres	1,700	gal/acre	10,625	7.38	15,938	11.07	31,875	22.14
Phase 9 Total					**160,625**	**111.55**	**240,938**	**167.32**	**481,875**	**334.64**
Project Total - Residential					**294,840**	**205**	**442,260**	**307**	**884,520**	**614**
Project Total - Commercial					**289,627**	**201**	**434,441**	**302**	**868,882**	**603**
Project Total - Irrigation					**64,600**	**45**	**96,900**	**67**	**193,800**	**135**
Project Total					**649,067**	**451**	**973,601**	**676**	**-**	**1,352**
Project Total (with 1.25 Factor of Safety)					**811,334**	**563**	**1,217,001**	**845**	**-**	**1,690**

PRELIMINARY WATER MASTER PLAN

OFF-SITE WATER DISTRIBUTION SYSTEM



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Reviewed by	TCC	Date	12/2025
Project No.	H109-001	REF.	
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Project
HOONANI VILLAGE

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H109-001

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APPENDIX 'E' – PRELIMINARY WASTEWATER SYSTEM CALCULATIONS AND PLANS

PRELIMINARY SANITARY SEWER MASTER PLAN

OVERALL MASTER PLAN

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PRELIMINARY SANITARY SEWER MASTER PLAN

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PRELIMINARY SANITARY SEWER MASTER PLAN

SOUTHWEST

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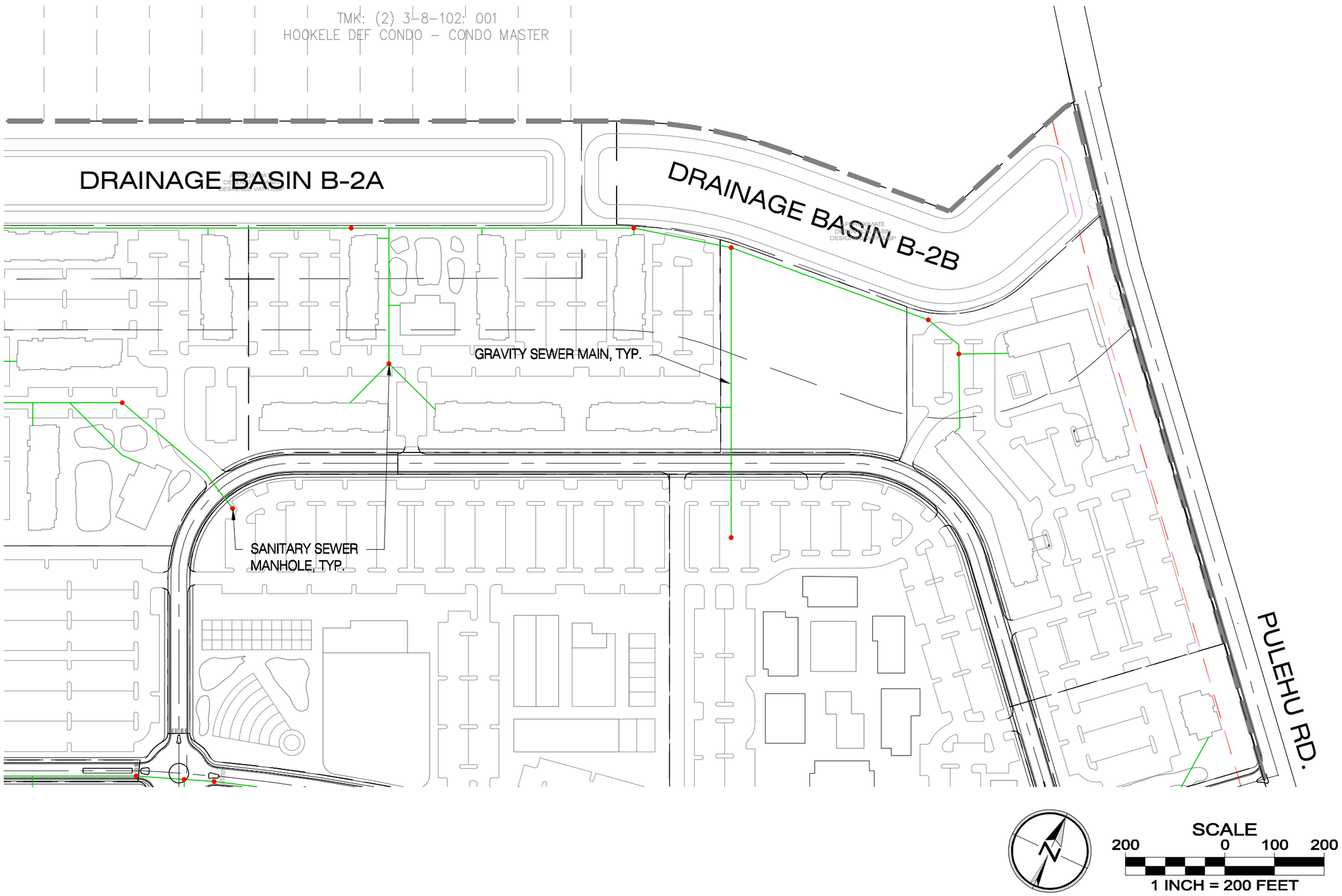
PRELIMINARY SANITARY SEWER MASTER PLAN

NORTHEAST



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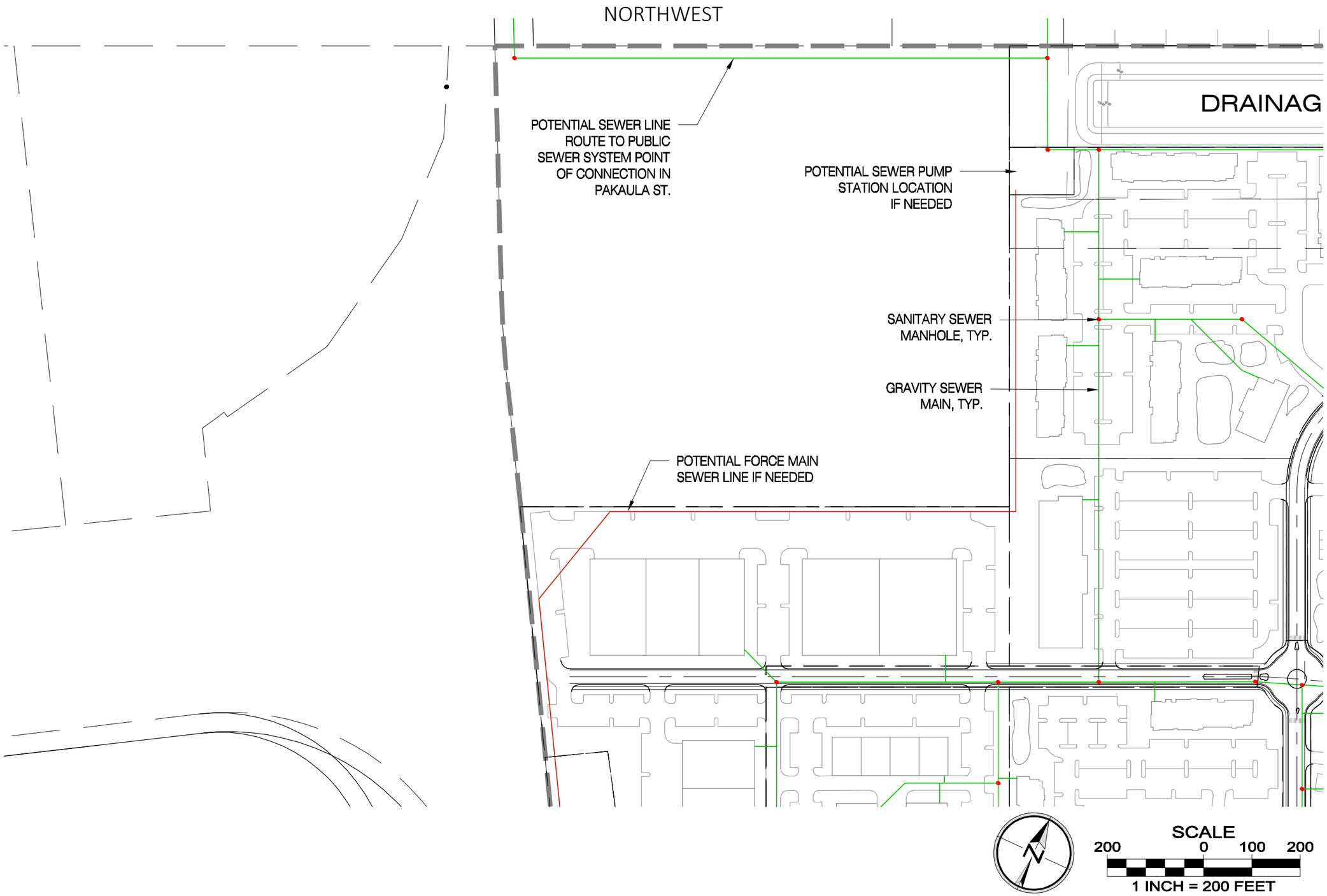
PRELIMINARY SANITARY SEWER MASTER PLAN



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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 1

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

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Project No.	H109-001	**REF.**	
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Project
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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 2

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

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Project No.	H109-001	**REF.**	
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Project
HOONANI VILLAGE

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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 3

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

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Reviewed by	TCC	**Date**	12/2025
Project No.	H109-001	**REF.**	
Horiz. Scale:	1" = 400'		
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Project
HOONANI VILLAGE

No.
H109-001

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ENGINEERING

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3 of 9

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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 4

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

PIONEER DESIGN GROUP – HAWAII LLC
CIVIL ENGINEERING · LAND USE PLANNING
CONSTRUCTION MANAGEMENT
HONOLULU, HAWAII PH: 808.400.5959
WWW.PD-GRP.COM

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Drawn by	HN	Date 12/2025
Reviewed by	TCC	Date 12/2025
Project No.	H109-001	REF.
Horiz. Scale:	1" = 400'	
Vert. Scale:		

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
4 of 9

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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 5

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

PIONEER DESIGN GROUP – HAWAII LLC
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Horiz. Scale:	1" = 400'		
Vert. Scale:			

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
5 of 9

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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 6

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

PIONEER DESIGN GROUP – HAWAII LLC
CIVIL ENGINEERING · LAND USE PLANNING
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Drawn by	HN	**Date** 12/2025
Reviewed by	TCC	**Date** 12/2025
Project No.	H109-001	**REF.**
Horiz. Scale:	1" = 400'	
Vert. Scale:		

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
6 of 9

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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 7

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

PIONEER DESIGN GROUP – HAWAII LLC
CIVIL ENGINEERING · LAND USE PLANNING
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Reviewed by	TCC	Date	12/2025
Project No.	H109-001	REF.	
Horiz. Scale:	1" = 400'		
Vert. Scale:			

Project
HOONANI VILLAGE

No.
H109-001

Type
ENGINEERING

Sheet
7 of 9

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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 8

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

PIONEER DESIGN GROUP – HAWAII LLC
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Reviewed by	TCC	Date	12/2025
Project No.	H109-001	REF.	
Horiz. Scale:	1" = 400'		
Vert. Scale:			

Project
HOONANI VILLAGE

No.
H109-001

Type
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Sheet
8 of 9

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PRELIMINARY SANITARY SEWER MASTER PLAN

PHASE 9

LEGEND

SEWER LINE

FORCE MAIN SEWER LINE

FUTURE PHASES TO BE BUILT

SEWER MANHOLE

SCALE

400 0 200 400

1 INCH = 400 FEET

PIONEER DESIGN GROUP – HAWAII LLC
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Reviewed by	TCC	Date	12/2025
Project No.	H109-001	REF.	
Horiz. Scale:	1" = 400'		
Vert. Scale:			

Project
HOONANI VILLAGE

No.
H109-001

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Sheet
9 of 9

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AVERAGE WASTEWATER SYSTEM CALCULATIONS

(Preliminary Sanitary Sewer Analysis for Hoonani Village)

JOB: H109-001
PROJECT: Hoonani Village
FILE: Hoonani Village Sanitary Sewer Capacity Calculations

TYPE OF USE	QUANTITY OF UNIT	UNIT	PROJECT QUANTITY	UNIT	TOTAL CAPITA	CONTRIBUTION (GAL/UNIT/DAY)	UNIT	AVERAGE DAILY FLOW VOLUME (GPD)	AVERAGE FLOW RATE (CFS)
Phase 1 - Residential	2.5	occupants per unit	268	units	670	255	gal/unit/day	68,340	0.106
Phase 1 Total Estimated Average Flow					**670**			**68,340**	**0.106**
Phase 1 Dry Weather Infiltration/Inflow	5	gal/capita/day	670	capita				3,350	0.005
Phase 1 Wet Weather Infiltration/Inflow	1250	gal/acre/day	10.80	acres				13,497	0.021
Phase 1 Average Daily Wastewater Flow								**85,187**	**0.132**
Phase 2 - Residential	2.5	occupants per unit	268	units	670	255	gal/unit/day	68,340	0.106
Phase 2 - Commercial (Retail)	1	employee per 350 sqft of floor area	5,000	sqft	14	15	gal/employee/day	214	0.0003
Phase 2 - Commercial (Restaurant, Customers)	1	seat per 20 sqft (60% usable space)	5,000	sqft	150	80	gal/seat/day	12,000	0.019
Phase 2 - Commercial (Restaurant, Front Employee)	1	employee per 20 customers	150	customers	8	15	gal/employee/day	113	0.0002
Phase 2 - Commercial (Restaurant, Back Employee)	1	employee per 50 customers	150	customers	3	15	gal/employee/day	45	0.0001
Phase 2 Total Estimated Average Flow					**845**			**80,712**	**0.125**
Phase 2 Dry Weather Infiltration/Inflow	5	gal/capita/day	845	capita				4,224	0.007
Phase 2 Wet Weather Infiltration/Inflow	1250	gal/acre/day	17.80	acres				22,253	0.034
Phase 2 Average Daily Wastewater Flow								**107,189**	**0.166**
Phase 3 - Residential	2.5	occupants per unit	268	units	670	255	gal/unit/day	68,340	0.106
Phase 3 - Commercial (Light Industrial)	1	employee per 500 sqft of floor area	75,000	sqft	150	25	gal/employee/day	3,750	0.006
Phase 3 Total Estimated Average Flow					**820**			**72,090**	**0.112**
Phase 3 Dry Weather Infiltration/Inflow	5	gal/capita/day	820	capita				4,100	0.006
Phase 3 Wet Weather Infiltration/Inflow	1250	gal/acre/day	21.75	acres				27,182	0.042
Phase 3 Average Daily Wastewater Flow								**103,372**	**0.160**
Phase 4 - Residential	2.5	occupants per unit	268	units	670	255	gal/unit/day	68,340	0.106
Phase 4 - Commercial (Office)	1	employee per 200 sqft of floor area	45,000	sqft	225	20	gal/employee/day	4,500	0.007
Phase 4 Total Estimated Average Flow					**895**			**72,840**	**0.113**
Phase 4 Dry Weather Infiltration/Inflow	5	gal/capita/day	895	capita				4,475	0.007
Phase 4 Wet Weather Infiltration/Inflow	1250	gal/acre/day	15.63	acres				19,540	0.030
Phase 4 Average Daily Wastewater Flow								**96,855**	**0.150**
Phase 5 - Residential	2.5	occupants per unit	268	units	670	255	gal/unit/day	68,340	0.106
Phase 5 - Commercial (Retail)	1	employee per 350 sqft of floor area	11,500	sqft	33	15	gal/employee/day	493	0.001
Phase 5 - Commercial (Restaurant, Customers)	1	seat per 20 sqft (60% usable space)	18,500	sqft	555	80	gal/seat/day	44,400	0.069
Phase 5 - Commercial (Restaurant, Front Employee)	1	employee per 20 customers	555	customers	28	15	gal/employee/day	416	0.001
Phase 5 - Commercial (Restaurant, Back Employee)	1	employee per 50 customers	555	customers	11	15	gal/employee/day	167	0.000
Phase 5 - Commercial (Entertainment)	1	occupant per 100 sqft of floor area (60% usable space)	5,000	sqft	30	5	gal/seat/day	150	0.0002
Phase 5 Total Estimated Average Flow					**1,327**			**113,966**	**0.176**
Phase 5 Dry Weather Infiltration/Inflow	5	gal/capita/day	1,327	capita				6,634	0.010
Phase 5 Wet Weather Infiltration/Inflow	1250	gal/acre/day	23.04	acres				28,804	0.045
Phase 5 Average Daily Wastewater Flow								**149,404**	**0.231**
Phase 6 - Residential	2.5	occupants per unit	268	units	670	255	gal/unit/day	68,340	0.106
Phase 6 Total Estimated Average Flow					**670**			**68,340**	**0.106**
Phase 6 Dry Weather Infiltration/Inflow	5	gal/capita/day	670	capita				3,350	0.005
Phase 6 Wet Weather Infiltration/Inflow	1250	gal/acre/day	11.08	acres				13,848	0.021
Phase 6 Average Daily Wastewater Flow								**85,538**	**0.132**

TYPE OF USE	QUANTITY OF UNIT	UNIT	PROJECT QUANTITY	UNIT	TOTAL CAPITA	CONTRIBUTION (GAL/UNIT/DAY)	UNIT	AVERAGE DAILY FLOW VOLUME (GPD)	AVERAGE FLOW RATE (CFS)
Phase 7 - Commercial (Hospitality, Customers)	2.25	occupants per unit	240	units	540	300	gal/unit/day	72,000	0.111
Phase 7 - Commercial (Hospitality, Employee)	1	employee per units	240	units	240	15	gal/employee/day	3,600	0.006
Phase 7 Total Estimated Average Flow					**780**			**75,600**	**0.111**
Phase 7 Dry Weather Infiltration/Inflow	5	gal/capita/day	780	capita				3,900	0.006
Phase 7 Wet Weather Infiltration/Inflow	1250	gal/acre/day	8.19	acres				10,239	0.016
Phase 7 Average Daily Wastewater Flow								**89,739**	**0.139**
Phase 8 - Commercial (Light Industrial)	1	employee per 500 sqft of floor area	180,000	sqft	360	25	gal/employee/day	9,000	0.014
Phase 8 - Commercial (Office)	1	employee per 200 sqft of floor area	55,000	sqft	275	20	gal/employee/day	5,500	0.009
Phase 8 Total Estimated Average Flow					**635**			**14,500**	**0.022**
Phase 8 Dry Weather Infiltration/Inflow	5	gal/capita/day	635	capita				3,175	0.005
Phase 8 Wet Weather Infiltration/Inflow	1250	gal/acre/day	18.96	acres				23,702	0.037
Phase 8 Average Daily Wastewater Flow								**41,377**	**0.064**
Phase 9 - Commercial (Civic)	1	employee per 200 sqft of floor area	30,000	sqft	150	20	gal/employee/day	3,000	0.005
Phase 9 - Future Commercial (Entertainment)	1	occupant per 100 sqft of floor area (25% buildable space, 60% usable space)	17.40	acres	1,137	5	gal/seat/day	5,683	0.009
Phase 9 Total Estimated Average Flow					**1,287**			**8,683**	**0.013**
Phase 9 Dry Weather Infiltration/Inflow	5	gal/capita/day	1,287	capita				6,433	0.010
Phase 9 Wet Weather Infiltration/Inflow	1250	gal/acre/day	24.18	acres				30,219	0.047
Phase 9 Average Daily Wastewater Flow								**45,335**	**0.070**
Total Estimated Average Residential Flow					**4,020**			**410,040**	**0.634**
Total Estimated Average Commercial Flow					**3,908**			**165,031**	**0.255**
Project Total Estimated Average Flow					**7,928**			**575,071**	**0.890**
Dry Weather Infiltration/Inflow	5	gal/capita/day	7,928	capita				39,641	0.061
Wet Weather Infiltration/Inflow	1250	gal/acre/day	151.43	acres				189,284	0.293
Project Total Average Daily Site Wastewater Flow		(Total Est. Avg. Project Flow + Dry Weather I/I + Wet Weather I/I)						**803,995**	**1.244**
Project Total Wastewater Flow Volume for WWTP		(increase by 25% as factor of safety)						**1,004,994**	**1.555**
Project Total Site Peak Wastewter Flow Rate		(2x Peak Factor) - utilizied for wastewater line sizing							**2.488**

WASTEWATER SYSTEM PIPE SIZE CALCULATIONS

(Preliminary Sanitary Sewer Analysis for Hoonani Village)

JOB:	H109-001
PROJECT:	Hoonani Village
FILE:	Hoonani Village Sanitary Sewer Capacity Calculations

VERIFYING FLOW OF VARIOUS SIZES OF MAIN LINE AT 1/2 FULL

For y/do= 0.5 (50% full pipe)

Manning's n =	0.013	
A/(d0^2) =	0.3927	(see table 10.1 below)
AR ^ (2/3) / (d0 ^ 8/3) =	0.1558	(see table 10.1 below)
S (ft./ft.) =	0.005	ft./ft.
S^(1/2) =	0.0707	

TABLE 10.1 GEOMETRIC ELEMENTS FOR CIRCULAR SECTION

$\frac{y}{d_0}$	$\frac{A}{d_0^2}$	$\frac{P}{d_0}$	$\frac{R}{d_0}$	$\frac{T}{d_0}$	$\frac{D}{d_0}$	$\frac{A\sqrt{D}}{d_0^{5/2}}$	$\frac{AR^{2/3}}{d_0^{8/3}}$
0.01	0.0013	0.2003	0.0066	0.1990	0.0066	0.0001	0.0000
0.05	0.0147	0.4510	0.0326	0.4359	0.0336	0.0027	0.0015
0.10	0.0409	0.6435	0.0635	0.6000	0.0682	0.0107	0.0065
0.15	0.0739	0.7954	0.0929	0.7141	0.1034	0.0238	0.0152
0.20	0.1118	0.9273	0.1206	0.8000	0.1398	0.0418	0.0273
0.25	0.1535	1.0472	0.1466	0.8660	0.1774	0.0646	0.0427
0.30	0.1982	1.1593	0.1709	0.9165	0.2162	0.0921	0.0610
0.35	0.2450	1.2661	0.1935	0.9539	0.2568	0.1241	0.0820
0.40	0.2934	1.3694	0.2142	0.9798	0.2994	0.1603	0.1050
0.45	0.3428	1.4706	0.2331	0.9950	0.3446	0.2011	0.1298
0.50	0.3927	1.5708	0.2500	1.0000	0.3928	0.2459	0.1558
0.55	0.4426	1.6710	0.2649	0.9950	0.4448	0.2949	0.1825
0.60	0.4920	1.7722	0.2776	0.9798	0.5022	0.3438	0.2092
0.65	0.5404	1.8755	0.2881	0.9539	0.5666	0.4066	0.2358
0.70	0.5872	1.9823	0.2962	0.9165	0.6408	0.4694	0.2608
0.75	0.6318	2.0944	0.3017	0.8660	0.7296	0.5392	0.2840
0.80	0.6736	2.2143	0.3042	0.8000	0.8420	0.6177	0.3045
0.85	0.7115	2.3462	0.3033	0.7141	0.9964	0.7098	0.3212
0.90	0.7445	2.4981	0.2980	0.6000	1.2408	0.8285	0.3324
0.94[a]	0.7662	2.6467	0.2896	0.4750	1.6130	0.9725	0.3353
0.95	0.7707	2.6906	0.2864	0.4359	1.7682	1.0242	0.3349
1.00	0.7854	3.1416	0.2500	0.0000	∞	∞	0.3117

[a]Maximum flow occurs at 0.94 full depth.

Manning's Equation:

$$Q = VA = \left(\frac{1.49}{n}\right) AR^{\frac{2}{3}} \sqrt{S} \quad [U.S.]$$

$$Q = VA = \left(\frac{1.00}{n}\right) AR^{\frac{2}{3}} \sqrt{S} \quad [SI]$$

Where:

Q = Flow Rate, (ft^3/s)
v = Velocity, (ft/s)
A = Flow Area, (ft^2)
n = Manning's Roughness Coefficient
R = Hydraulic Radius, (ft)
S = Channel Slope, (ft/ft)

PIPE MAIN SIZE	do (ft)	AR ^ (2/3)	FLOW RATE (Q)			
6" Sewer Main	0.50	0.0245	**0.20 cfs**	<	1.244	cfs
8" Sewer Main	0.67	0.0528	**0.43 cfs**	<	1.244	cfs
10" Sewer Main	0.83	0.0958	**0.78 cfs**	<	1.244	cfs
12" Sewer Main	1.00	0.1558	**1.26 cfs**	>	1.244	cfs
12" PIPE AT 0.5% MIN. SLOPE FLOWING HALF FULL CAN CONVEY THE WASTEWATER FLOW FROM HOONANI VILLAGE						
15" Sewer Main	1.25	0.2825	**2.29 cfs**	<	2.488	cfs
18" Sewer Main	1.50	0.4594	**3.72 cfs**	>	2.488	cfs
18" PIPE AT 0.5% MIN. SLOPE FLOWING HALF FULL CAN CONVEY THE PEAK WASTEWATER FLOW FROM HOONANI VILLAGE						
20" Sewer Main	1.67	0.6084	**4.93 cfs**	>	2.488	cfs
24" Sewer Main	2.00	0.9893	**8.02 cfs**	>	2.488	cfs

County of Maui
Wastewater Reclamation Division

2200 Main Street Suite 610 ● Wailuku, HI 96793 ● (808) 270-7417 ● 270-7425 fax

Wastewater Flow Standards

The following wastewater flow contributions are to be utilized for projecting wastewater flows for the following types of uses, unless other supporting data is provided to show differently.

Type of use	Unit	Contribution (Gal/Unit/Day)
Apartment/Condo	Unit	255
Bar	Seat	15
Church, large	Seat	6
Church, small	Seat	4
Cottage or Ohana (600 S.F. max)	Unit	180
Day-care Center	Child	10
Factory	Employee	30
Golf Clubhouse	Golf Rounds	25
Hotel, resort with laundry	Room	350
Hotel, average with laundry	Room	300
Hotel, average without laundry	Room	250
Hospital	Bed	200
Industrial Shop	Employee	25
Laundry (coin operated)	Machine	300
Office	Employee	20
Residence, subdivision	Home	350
Restaurant, average	Seat	80
Restaurant, fast food	Seat	100
Rest Home	Patient	100
Retail Store	Employee	15
School, elementary	Student	15
School, high	Student	25
Storage, w/ offices	Employee	15
Storage w/ offices and showers	Employee	30
Store Customer bathroom usage	Use	5
Theater	Seat	5

The following standards will be used as necessary to compute the number of units required to make wastewater calculations:

Residential Occupancy	4 persons per unit
Apartment/Condo Occupancy	2.5 persons per unit
Hotel Occupancy	2.25 persons per unit
Hotel Employees	1 per hotel room
Office Employees	1 per 200 square feet of floor area
Retail Warehouse Employees	1 per 350 square feet of floor area
Storage/ Industrial Employees	1 per 500 square feet of floor area

Average Wastewater Flow: The average wastewater flow is the sum of the applicable wastewater flows listed above.

Maximum Wastewater Flow: The maximum wastewater flow is obtained by multiplying the average flow by a flow factor. The flow factor shall be obtained utilizing the Babbit formula or other rationale method.

Dry Weather Infiltration/Inflow: The following rates shall be used in the design of wastewater transmission lines:

a. 35 gpcd* - Wastewater lines laid below the normal ground water table.

b. 5 gpcd - Wastewater lines laid above the normal ground water table.

* gpcd = Gallons per Capita Day

Wet Weather Infiltration/Inflow: The following rates shall be used in the design of wastewater transmission lines:

a 2,750 gad* - Wastewater lines laid below the normal ground water table.

b. 1,250 gad - Wastewater lines laid above the normal ground water table.

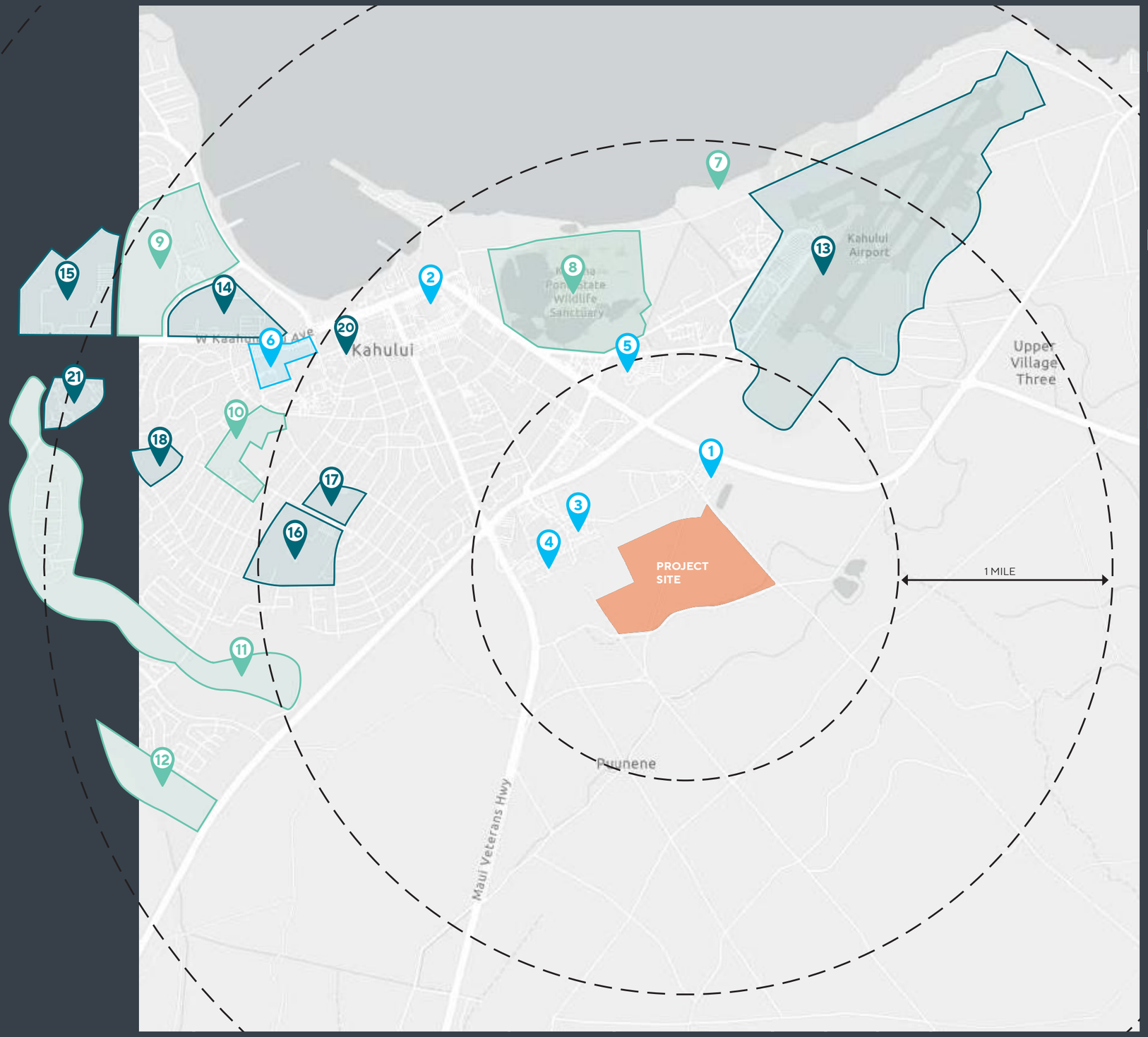
* gad = Gallons per Acre per Day

Design Average Flow: The design average flow is the sum of the average wastewater flow and the applicable dry weather infiltration/inflow rate.

Design Maximum Flow: The design maximum flow is the sum of the maximum flow and the applicable dry weather infiltration/inflow rate.

Design Peak Flow: The design peak flow of wastewater is the sum of design maximum flow and the wet weather infiltration/inflow

APPENDIX 'F' – PRELIMINARY CONCEPT PLANS



MAP LEGEND

RETAIL

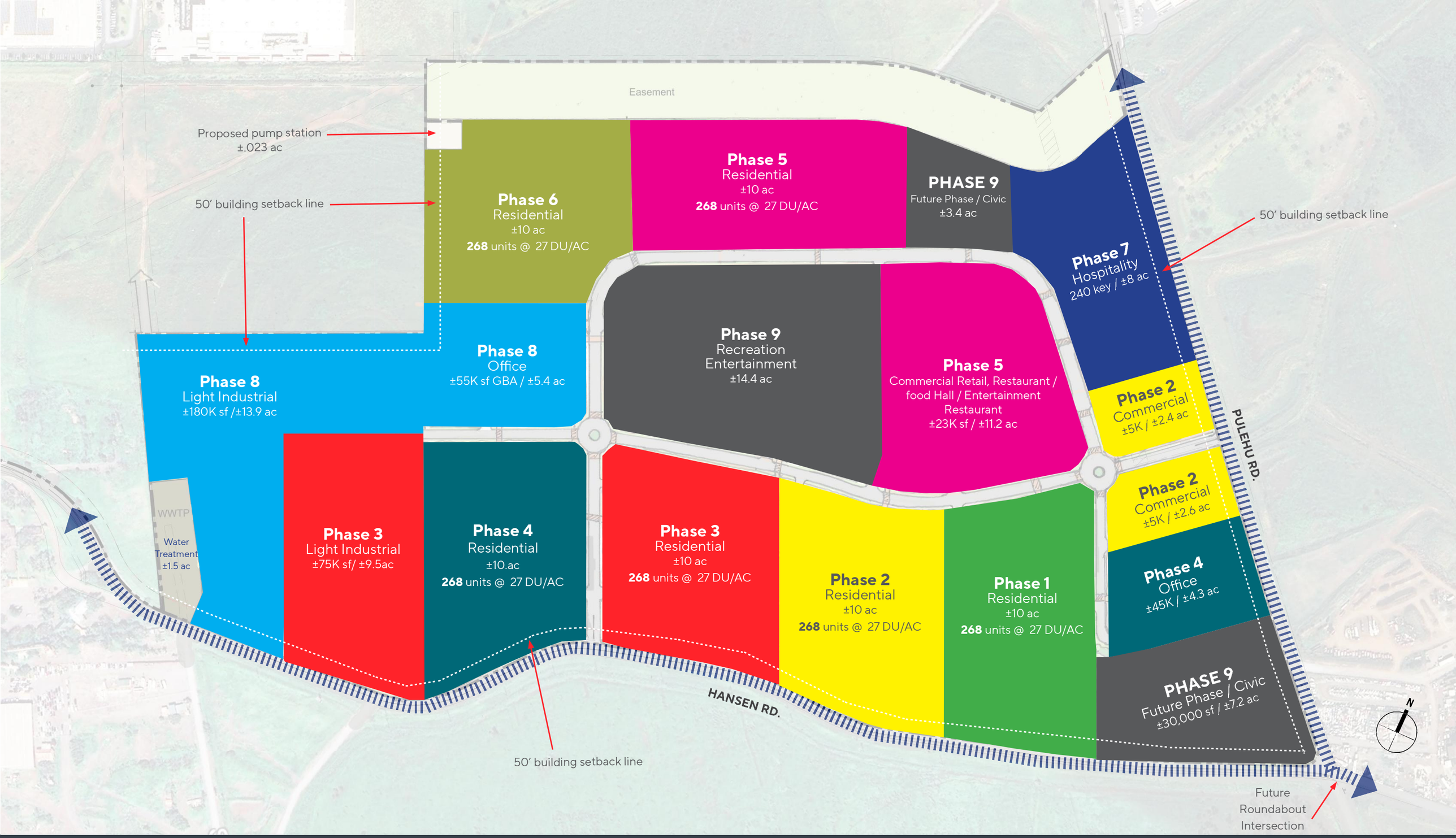
1. COSTCO
2. WHOLE FOODS MARKET
3. WALMART
4. TAGET
5. SAFEWAY
6. QUEEN KALAHUMANU CENTER

POINTS OF INTEREST

7. KANAHA BEACH
8. KANAHA POND STATE WILDLIFE SANCTUARY
9. KEOPUOLANI REGIONAL PARK
10. KAHULUI COMMUNITY CENTER PARK
11. THE DUNES AT MAUI LANI GOLF COURSE
12. CENTRAL MAUI REGIONAL SPORTS COMPLEX

PUBLIC AMENITIES

13. KAHULUI AIRPORT
14. UNIVERSITY OF HAWAII MAUI COLLEGE
15. BALDWIN HIGH SCHOOL
16. MAUI HIGH SCHOOL
17. KAHULUI ELEMENTARY SCHOOL
18. LIHIKAI ELEMENTARY SCHOOL
19. POMAIKA'I ELEMENTARY SCHOOL
20. KAHULUI PUBLIC LIBRARY
21. MAUI MEMORIAL MEDICAL CENTER



Ho'onani
Development

PROPOSED MASTER SITE PLAN

Kahului, Maui, Hawaii

Concept Site Plan Study

Land Use Diagram

Architecture.
Design.
Relationships.

2

Scale 1"=300'
Job No. 2023-0690
Date 2025-10-24

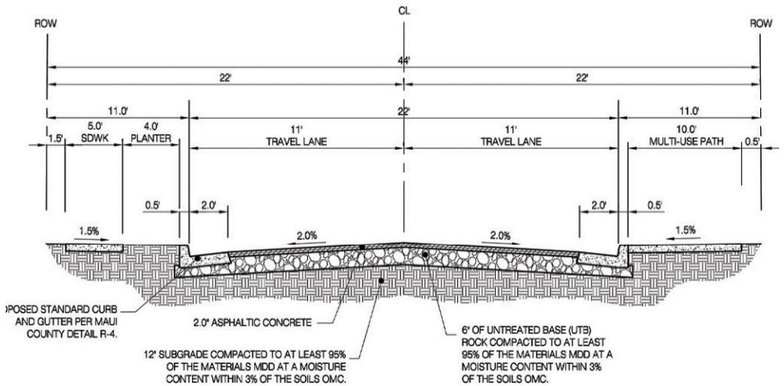
Land Use Summary - 2025.10.24

uses	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9 / PHASE PARCEL	TOTAL KEYS	TOTAL GBA	TOTAL PARCEL ACREAGE	TOTAL UNIT
Multi-Family													
Market Rate Multi-Family (Walk-up) 7	268	268	268	268	268	268							**1608**
Affordable Multi-Family (Walk -up) 7				Part of 268		part of 268							TBD
Acreage	10	10	10	10	10	10						**60**	
Commercial & Others													
Commercial Retail & Restaurant 1		10,000			23,000						**33,000**	**16.2**	
Food Hall 2					7,000						**7,000**	(Part of 16.2)	
Entertainment Space 3					5,000						**5,000**	(Part of 16.2)	
Light Industrial Park 4			75,000					180,000			**255,000**	**23.4**	
Office Building 5				45,000				55,000			**100,000**	**9.7**	
Hospitality 6							240*			**240***		**8.0**	
Future Phase Commercial / Civic 9									30,000		**30,000**	**7.2**	
Future Phase (Recreation / Entertainment / Park) 8									TBD		TBD	**14.4**	
Future Phase / Civic 9									TBD		TBD	**3.4**	
Parcel Acreage		5	9.5	4.3	11.2		8	19.3	25			**82.3**	
Total										240*	**430,000**	**142**	**1608**

* Dual-brand Hotels site with shared common amenities; Circulation major ROW, water treatment and pump station site area are excluded

- **Residential:** Typical building is 3 levels, average 45 unites / per building: (1) 36+ (1)40+ (4) 48 = 268 units. Total 6 buildings at each residential parcel.
  Average parking provided is about 1.8 / unit
- Phase 9 & Future Commercial parcel ±14.4 includes: "Popstroke" and "Chicken N Pickle" type of amusement / entertainment parks and a community park.

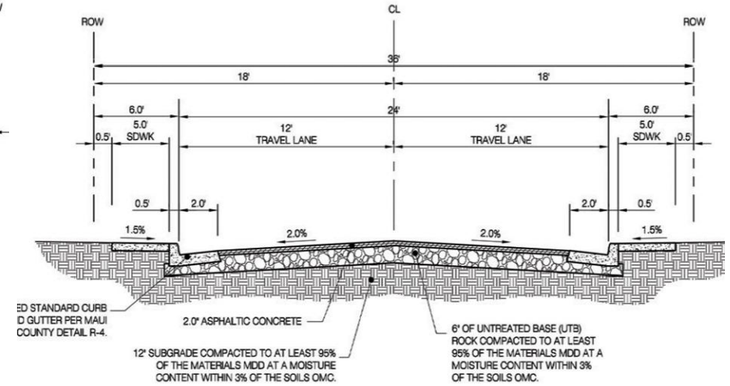
1 Commercial Retail & Restaurant
2 Food Hall
3 Entertainment
4 Light Industrial
5 Office Building
6 Hospitality
7 Residential
8 Recreation / Sports Park
9 Future Phase / Civic



TYPICAL LOCAL
STREET SECTION
- NO PARKING

NTS

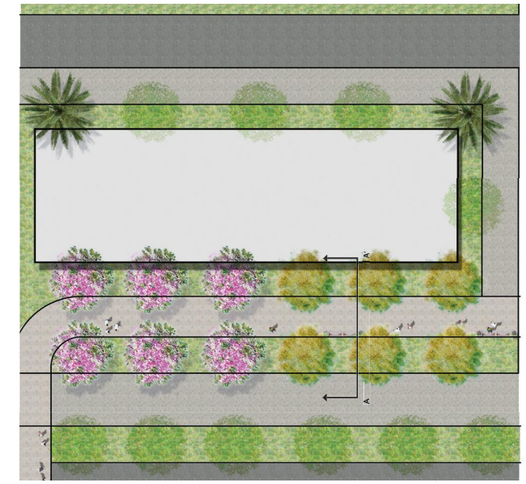
Street B

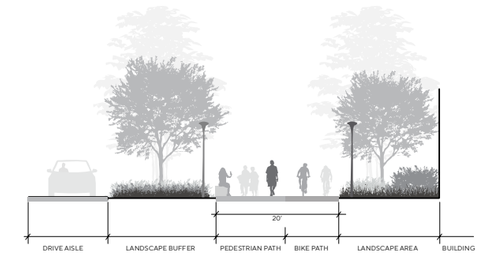


TYPICAL INDUSTRIAL
STREET SECTION
- NO PARKING

NTS

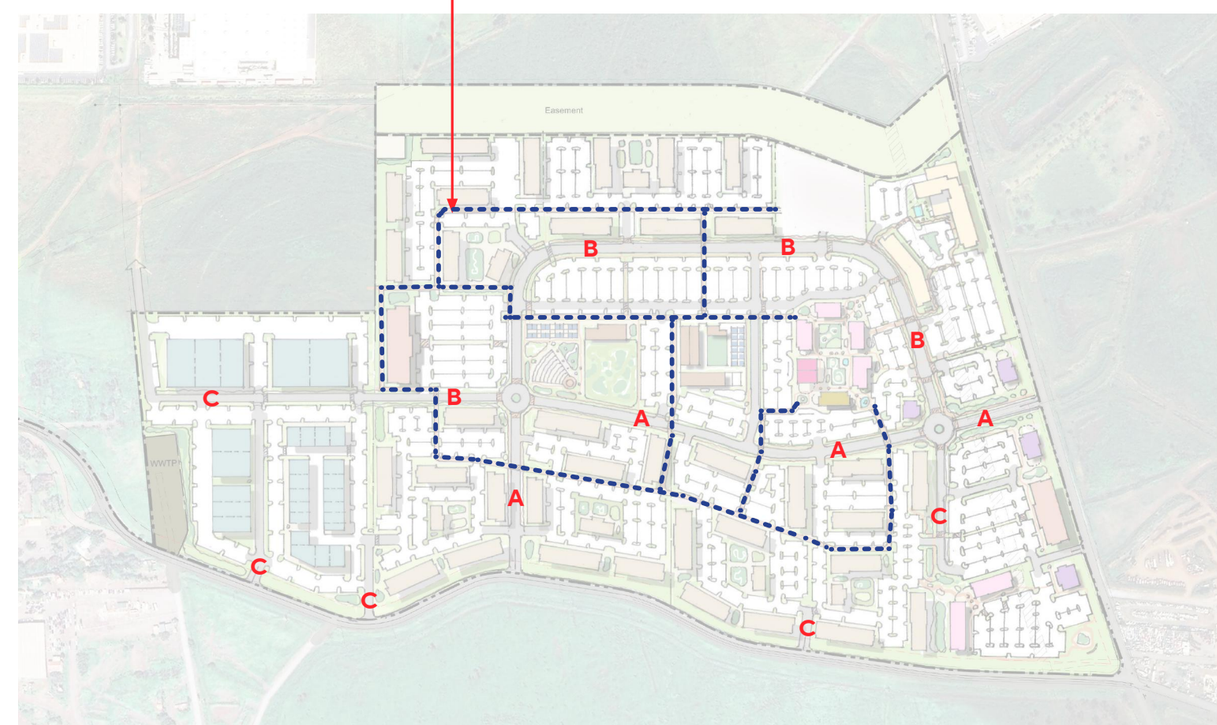
Street C

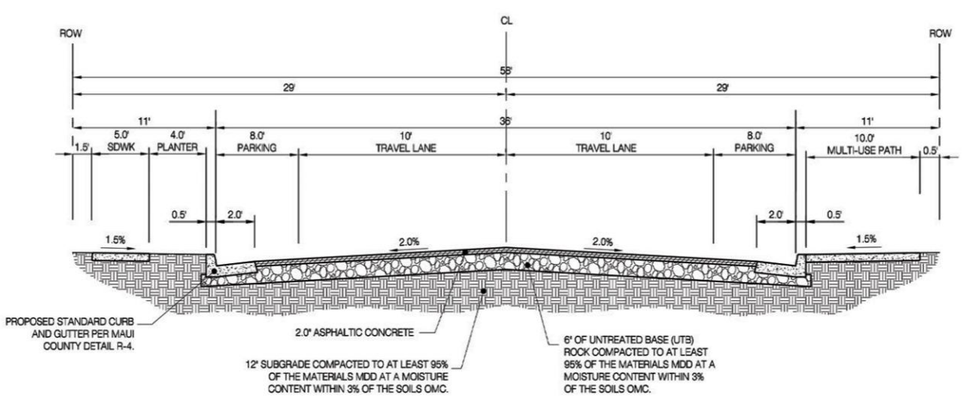




SECTION A'-A'

D: 20' wide bike and pedestrian pathway link all phases

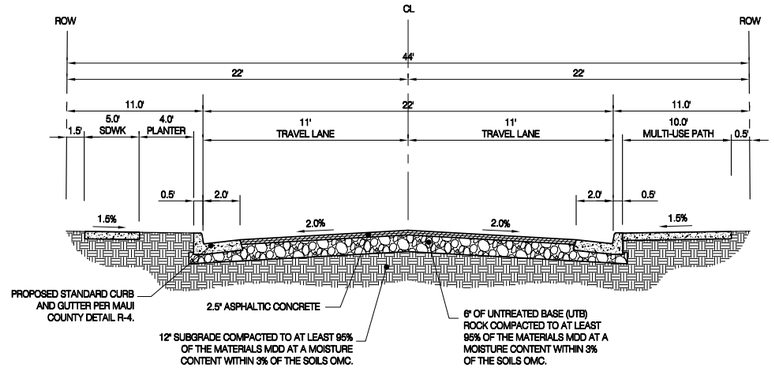




TYPICAL LOCAL
STREET SECTION
- PARKING BOTH SIDES

NTS
(ROADS A & B ADJACENT TO FUTURE TOWN CENTER)

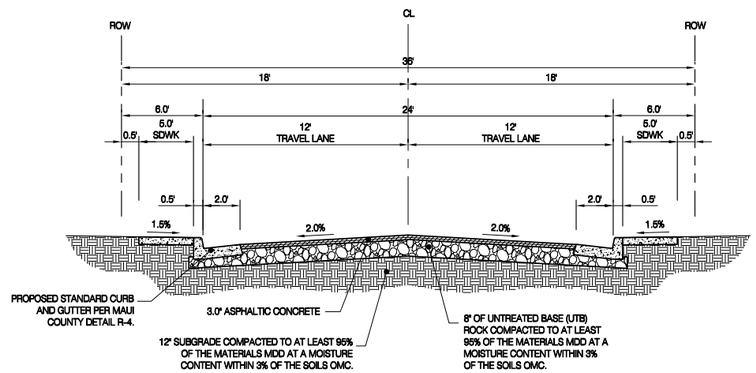
Street A



TYPICAL LOCAL
STREET SECTION
- NO PARKING

NTS

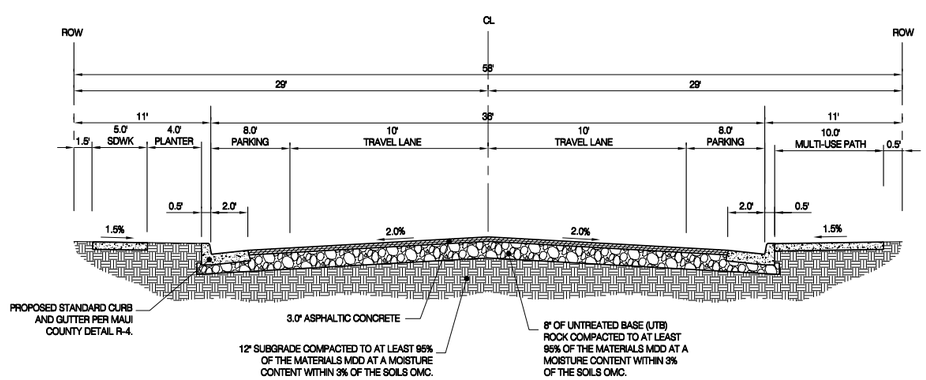
Street Type B



TYPICAL INDUSTRIAL
STREET SECTION
- NO PARKING

NTS

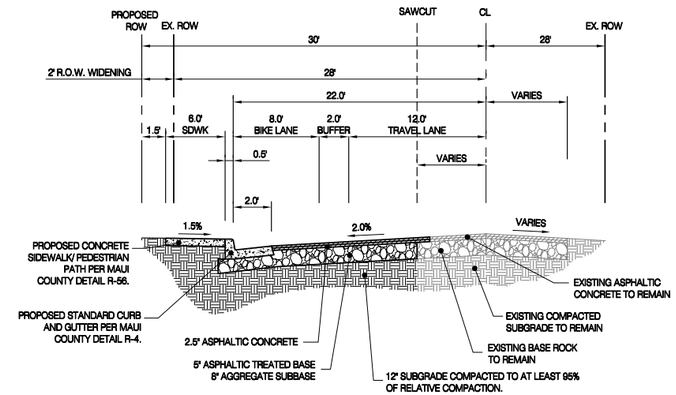
Street Type C



TYPICAL MINOR COLLECTOR
STREET SECTION
- PARKING BOTH SIDES

NTS

Street Type A

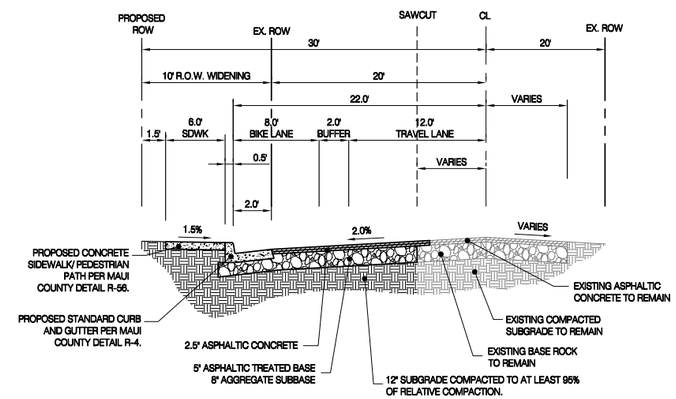


TYPICAL MAJOR COLLECTOR STREET SECTION

PULEHU ROAD

NTS

(PULEHU ROAD SECTION TO MATCH STANDARD MAUI COUNTY
PAVEMENT SECTION FOR AN URBAN MAJOR COLLECTOR
(CLASS "A" - PAVEMENT STRUCTURE), SEE MAUI COUNTY DETAIL R-54)



TYPICAL MAJOR COLLECTOR STREET SECTION

HANSEN ROAD

NTS

(HANSEN ROAD SECTION TO MATCH STANDARD MAUI COUNTY
PAVEMENT SECTION FOR AN URBAN MAJOR COLLECTOR
(CLASS "A" - PAVEMENT STRUCTURE), SEE MAUI COUNTY DETAIL R-54)

PIONEER DESIGN GROUP – HAWAII LLC
CIVIL ENGINEERING LAND USE PLANNING
CONSTRUCTION MANAGEMENT
HONOLULU, HAWAII PH: 808.400.5649
WWW.PD-GRP.COM

SIGNATURE
04/30/2026
STAMP EXPIRATION DATE
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION, AND I ACCEPT RESPONSIBILITY FOR WHAT WILL BE UNDER MY OBSERVATION.
TYLER G K CAMPBELL
LICENSED PROFESSIONAL ENGINEER
No. 18461-C
HAWAII
U.S.A.

TYPICAL STREET SECTIONS

HO'ONANI VILLAGE
KAHULUI, COUNTY OF MAUI, HAWAII

No.	Date	Revision

Project
HO'ONANI VILLAGE
No.
H109-001
DESIGNED BY TCC
DATE 10/2025
Sheet
C3.0

B:\Projects\PDGHAWAII\H109-001\Engineering\H1091_C3_SECT.dwg 1/14/2026 1:51:19 PM

APPENDIX 'G' – PERCOLATION TEST RESULTS

DEPARTMENT OF HEALTH – WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS) – SITE EVALUATION/PERCOLATION TEST
(PERCOLATION TEST NO. 1 - EAST)

Date/Time: July 29, 2024 Test Performed by: Hawaii Geotechnical Consulting, Inc.

Owner: Ho'onani Development, LLC TMK: --

Elevation:	Unknown	Feet
Depth to Groundwater Table:	>10	feet below grade
Depth to Bedrock (if observed):	Unknown	feet below grade
Diameter of Hole:	9.0	inches
Depth to Hole Bottom:	36	inches below grade

Depth, inches below grade	Soil Profile (color, texture, other)
0-18	Brown Clayey Silt with some Sand, Soft
18-108	Orange Brown Silt with some Sand, Hard

PERCOLATION READINGS:

Time 12 inches of water to seep away: 101 minutes

Time 12 inches of water to seep away: 47 minutes

Check one:

_____ Percolation tests in sandy soils, recorded time intervals and water drops at least every 10 minutes for at least 1 hour.

X Percolation tests in non-sandy soils, presoaked the test hole for at least 4 hours. Recorded time intervals and water drops at least every 10 minutes for 1 hour of time for the first 6 inches to seep away in greater than 30 minutes recorded time intervals and water drops at least every 30 minutes for 4 hours or until 2 successive drops do not vary by more than 1/16 inch.

Time Interval (min)	Drop in Inches	Time Interval (min)	Drop in Inches	Time Interval (min)	Drop in Inches
30	2-5/8	30	2-5/8		
30	2-3/16	30			
30	2-1/2				
30	2-5/8				

Percolation Rate (time/final water level drop): 11.41 minute/inch

As the engineer responsible for gathering and providing site information and percolation test results, I attest to the fact that above site information is accurate and that the site evaluation was conducted in accordance with the provisions of Chapter 11-62, "Wastewater Systems" and the results were acceptable. I also attest that three feet of suitable soil exists between the bottom of the soil absorption system and the groundwater table or any other limiting layer.

Engineer's Signature/Stamp

ROBERT M. GIBBENS
LICENSED PROFESSIONAL ENGINEER
No. 10094-C
HAWAII, U.S.A.

July 29, 2024

License Expires 04/30/2026

DEPARTMENT OF HEALTH – WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS) – SITE EVALUATION/PERCOLATION TEST
(PERCOLATION TEST NO. 2 - WEST)

Date/Time: July 29, 2024 Test Performed by: Hawaii Geotechnical Consulting, Inc.

Owner: Ho'onani Development, LLC TMK: --

Elevation:	Unknown	Feet
Depth to Groundwater Table:	>10	feet below grade
Depth to Bedrock (if observed):	Unknown	feet below grade
Diameter of Hole:	9.0	inches
Depth to Hole Bottom:	36	inches below grade

Depth, inches below grade	Soil Profile (color, texture, other)
0-18	Brown Clayey Silt with some Sand, Soft
18-108	Orange Brown Silt with some Sand, Hard

PERCOLATION READINGS:

Time 12 inches of water to seep away: 136 minutes

Time 12 inches of water to seep away: 100 minutes

Check one:

_____ Percolation tests in sandy soils, recorded time intervals and water drops at least every 10 minutes for at least 1 hour.

X Percolation tests in non-sandy soils, presoaked the test hole for at least 4 hours. Recorded time intervals and water drops at least every 10 minutes for 1 hour of time for the first 6 inches to seep away in greater than 30 minutes recorded time intervals and water drops at least every 30 minutes for 4 hours or until 2 successive drops do not vary by more than 1/16 inch.

Time Interval (min)	Drop in Inches	Time Interval (min)	Drop in Inches	Time Interval (min)	Drop in Inches
30	4-15/16	30	5-1/16		
30	5-1/4				
30	5				
30	5-1/16				

Percolation Rate (time/final water level drop): 5.93 minute/inch

As the engineer responsible for gathering and providing site information and percolation test results, I attest to the fact that above site information is accurate and that the site evaluation was conducted in accordance with the provisions of Chapter 11-62, "Wastewater Systems" and the results were acceptable. I also attest that three feet of suitable soil exists between the bottom of the soil absorption system and the groundwater table or any other limiting layer.

Engineer's Signature/Stamp

ROBERT M. GIBBENS
LICENSED PROFESSIONAL ENGINEER
No. 10094-C
HAWAII, U.S.A.

July 29, 2024

License Expires 04/30/2026

APPENDIX 'H' – DEPARTMENT OF WATER SUPPLY COMMENT LETTER

RICHARD T. BISSEN, JR.
Mayor

JOSIAH K. NISHITA
Managing Director

JOHN STUFFLEBEAN, P.E.
Director

JAMES A. LANDGRAF
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAIʻI 96793
http://www.mauicounty.gov/water

December 23, 2025

Emily Murai
Pioneer Design Group – Hawai'i, LLC
711 Kapiolani Blvd, Suite 1450
Honolulu, HI 96813

RE: Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Ho'onani Village Mixed-Use Development Project at Kahului, Maui, Hawai'i; TMK: (2) 3-8-006:004

Dear Ms. Murai:

The Department of Water Supply (DWS) appreciates the opportunity to comment on the Environmental Impact Statement Preparation Notice (EISPN) for proposed Ho'onani Village Mixed-Use Development.

Source of Water
The project proposes to utilize a private water source (Pu'unene Pump 5). The Department supports the development of private sources that align with the Water Use and Development Plan Ordinance 5335 Maui Island WUDP_202304281454302026.pdf. The project is subject to Maui County Code (MCC) Title 14.12 water availability policy. The applicant must secure a long-term reliable source of water for the project's total demand.

Consumption Guidelines
Based on the Water Systems Standards (2002, State of Hawai'i), the calculated average daily demand for the proposed 1,600 multi-family residential units is 560 gallons per day (gpd) per unit, totaling 896,000 gpd.

Existing Infrastructure
The subject parcel contains a 6-inch waterline running along Hansen Road and an 8-inch waterline traversing the lot. Should the development connect to DWS infrastructure, the water system must be developed to DWS system standards.

Water Conservation Best Management Practices (BMPs)
Indoor
DWS recommends the following indoor conservation measures be implemented:

- Install EPA WaterSense-labeled plumbing fixtures, as well as appliances that are EPA Energy Star or ASHRAE certified.
- Install high-efficiency (HE) faucet aerators in all plumbing fixtures wherever possible.
- Install dual-flush toilets using HE models that consume 1.28 gallons per flush (gpf) or less.
- Install HE showerheads with a flow rate of 1.5 gallons per minute (gpm) at 60 psi.
- Install HE bathroom sink faucets with a flow rate not exceeding 1 gpm at 60 psi.
- Ensure laundry facilities and individual unit machines use Energy Star-labeled washers.
- Install recirculating indoor water features powered by solar photovoltaics when practical.

Outdoor
DWS recommends the following outdoor conservation measures be implemented:

- Install high-efficiency irrigation systems and products. Examples include evapotranspiration irrigation controllers, drip irrigation, soaker hoses, misters, and punch-in or micro-sprinklers that direct water only to intended areas without causing runoff.
- Apply graywater to tolerant native and non-native landscaping using subsurface drip irrigation. This includes courtyards and other vegetated areas, provided it is permitted and applied according to Hawaii State Department of Health guidelines.
- Install recirculating outdoor water features with solar photovoltaics when practical.
- Use drip irrigation or combine drought-tolerant landscaping with gravel and rocks in narrow medians to reduce runoff.
- Use mulching in landscaped areas to help retain soil moisture. Set irrigation timers for early morning or evening to limit evaporation.
- Reduce and replace underutilized lawn areas with native plants to conserve water and mitigate the heat island effect.
- Prioritize native and climate-adapted plants for landscaping whenever possible.
- Limit watering or irrigation of lawns, landscapes, and other vegetated areas to the hours before 9:00 a.m. and after 5:00 p.m.

- Limit landscape irrigation to no more than three days per week, except where stricter requirements apply during a water shortage declaration.
- Avoid spray irrigation during excessively windy days.
- Avoid irrigation during rain events.

Should you have any questions, please contact either Geovanna Torres at (808) 463-3104 or via email at Geovanna.Torres@co.maui.hi.us.

Sincerely,

John Stufflebean, P.E.
DWS Director
GT

S:\PLANNING\PERMIT_Review\Planning\EA-EIS\2_3_8_006_004-0005_Hoonani_Village_EISPN

APPENDIX 'I' DEPARTMENT OF ENVIRONMENTAL MANAGEMENT COMMENT LETTER

RICHARD T. BISSEN, JR.
Mayor

SHAYNE R. AGAWA, P.E.
Director

MICHAEL D. PETERSEN
Deputy Director

MICHAEL KEHANO, P.E.
Solid Waste Division

ERIC A. NAKAGAWA, P.E.
Wastewater Reclamation Division

CECILE POWELL
Environmental Protection &
Sustainability Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2145 KAOHU STREET, SUITE 102
WAILUKU, MAUI, HAWAI'I 96793

December 12, 2025

Emily Murai emurai@pdg-hawaii.com
Pioneer Design Group- Hawai'i
711 Kapiolani Blvd, Suite 1450
Honolulu, Hawai'i 96813

and

Martina Segura dbedt.luc.web@hawaii.gov
State of Hawai'i, Land Use Commission3
P.O. Box 2359
Honolulu, Hawai'i 96813

SUBJECT: ENVIRONMENTAL IMPACT PREPARATION STATEMENT NOTICE (EISPN)
HO'ONANI VILLAGE MIXED-USE DEVELOPMENT PROJECT
KAHULUI, MAUI, HAWAI'I
TMK (2) 3-8-006:004
MAPPS CASE: DEMD2025-00004

This letter is in response to your December 5, 2025 request for comments on the project document published in the December 8, 2025 edition of *The Environmental Notice*. A review by our Wastewater Reclamation Division (WWRD) has compiled the following:

1. We understand that the subject project is being developed is approximately 166.5 acres of the former Puunene Sugar Mill property located west of Pulehu Rd. and north of Hansen Rd. in Kahului. The project includes a mix of multifamily residential units, industrial and commercial development. Per the information available, the project will develop approximately 1,608 residential units, approximately 464,000 sf of industrial/commercial property with additional space for a possible 700± housing units. It is expected that the project will produce approximately one million gallons per (1 MGD) day of wastewater (average daily flow) at final buildout.
2. The proposed project is outside of the current sewer service area.
3. If the development intends to connect to the County wastewater system, we note that there is currently not enough capacity within the existing sewer collection system.
    a. Assuming the sewer tie-in would be at Pakaula Street (SMH KA02XB3950) the project's wastewater will ultimately affect approximately 7,900 feet of existing gravity sewer lines from the tie-in point to the Alamaha Wastewater Pump Station (WWPS). These lines would need to be increased in size.

b. The Alamaha WWPS (aka A&B WWPS), force main and 200 feet of gravity line after discharge would also need to be upgraded to accept the additional flow. Further analysis of the Kahului WWPS and its force main would need to be conducted to determine if it would have adequate capacity.

4. Similarly, there is not enough capacity at the Wailuku/Kahului Wastewater Reclamation Facility (WWRF) to accept flow at this time.
   a. The facility currently processes approximately 5.6 million gallons per day (mgd) of wastewater. To date the County has allocated about 7.5 mgd of the plants 7.9 mgd capacity.
   b. In addition, the strength of wastewater has exceeded its original design value further decreasing actual available plant capacity.
   c. Efforts to increase treatment capacity are underway. To accept any flow, the Ho'onani Village project would need to wait until late 2029 or 2030 for the Central Maui WWRF near Waikapu to be constructed and become operational and existing flow diverted, and/or until WWRD is successful in increasing treatment capacity at the Kahuilui WWRF.
5. Based on the required upgrades to the existing wastewater infrastructure and treatment capacity status WWRD suggests that the developer perform a detailed cost analysis to determine if an onsite WWRF would be more feasible.
6. Note that capacity cannot be guaranteed until building permits are issued. There is always a possibility that adequate capacity may not be available if construction is delayed, other projects are developed, or regulatory conditions change.

Should you have any questions or require any additional information regarding our ability to serve this project, do not hesitate to contact me at (808) 270-8230 or our Wastewater Division at (808) 270-7417.

Sincerely,

Michael D. Petersen

Digitally signed by Michael D. Petersen (Deputy Director) for Shayne R. Agawa
Date: 2025.12.12 16:37:50 -10'00'

for SHAYNE R. AGAWA, P.E.
Director of Environmental Management

xc: Wastewater Reclamation Division

SA:sr (2025.112.12 Hoonani Village EISPN Comments.docx)

APPENDIX ‘N’ – USFWS OFFICIAL SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish And Wildlife Office
300 Ala Moana Boulevard, Box 50088
Honolulu, HI 96850-5000
Phone: (808) 792-9400 Fax: (808) 792-9580

In Reply Refer To: 12/12/2025 23:38:14 UTC
Project Code: 2026-0012172
Project Name: Ho'onani Village

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened and endangered species, as well as designated critical habitat that may occur within the boundary of your proposed project and that may be affected by project related actions. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Please contact the Service's Pacific Islands Fish and Wildlife Office (PIFWO) at 808-792-9400 if you have any questions regarding your IPaC species list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may adversely affect threatened and endangered species and/or designated critical habitat.

Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a Biological

Evaluation, similar to a Biological Assessment, be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment or Biological Evaluation are described at 50 CFR 402.12.

Due to the significant number of listed species found on each island within PIFWO's regulatory jurisdiction, and the difficulty in accurately mapping ranges for species that we have limited information about, your species list may include more species than if you obtained the list directly from a Service biologist. We recommend you use the species links in IPaC to view the life history, habitat descriptions, and recommended avoidance and minimization measures to assist with your initial determination of whether the species or its habitat may occur within your project area. If appropriate habitat is present for a listed species, we recommend surveys be conducted to determine whether the species is also present. If no surveys are conducted, we err on the side of the species, by regulation, and assume the habitat is occupied. Updated avoidance and minimization measures for plants and animals, best management practices for work in or near aquatic environments, and invasive species biosecurity protocols can be found on the PIFWO website at: https://www.fws.gov/office/pacific-islands-fish-and-wildlife/library.

If a Federal agency determines, based on the Biological Assessment or Biological Evaluation, that a listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/endangered/esa-library/index.

Non-federal entities can also use the IPaC generated species list to develop Habitat Conservation Plans (HCP) in accordance with section 10(a)(1)(B) of the Act. We recommend HCP applicants coordinate with the Service early during the HCP development process. For additional information on HCPs, the Habitat Conservation Planning handbook can be found at https://www.fws.gov/sites/default/files/documents/habitat-conservation-planning-handbook-entire.pdf.

Please be aware that wind energy projects should follow the Service’s wind energy guidelines (http://www.fws.gov/windenergy) for minimizing impacts to migratory birds. Listed birds and the Hawaiian hoary bat may also be affected by wind energy development and we recommend development of a Habitat Conservation Plan for those species, as described above. Guidance for minimizing impacts to migratory birds for projects including communications towers can be found at:

- http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers
- http://www.towerkill.com
- http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow

Fish and Wildlife Coordination Act: Any modification to freshwater or marine waters of the U.S. including impounding, diverting, deepening, controlling, or modification for any other purpose requires a Fish and Wildlife Coordination Act (FWCA) consultation with the U.S Fish and Wildlife Service, State/ Territorial wildlife agency (State of Hawaii Division of Aquatic

Resources, American Samoa’s Department of Marine and Wildlife Resources, Guam’s Division of Aquatic and Wildlife Resources, or the Northern Mariana Island’s Division of Fish and Wildlife) and the National Marine Fisheries Service. The Pacific Islands Fish and Wildlife Office in Honolulu should be notified of a FWCA consultation request with a project description and any relevant biological information in order to expedite the appropriate level of coordination and consultation needs.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation actions that benefit threatened and endangered species into their project planning to further the purposes of the Act in accordance with section 7(a)(1). Please include the Consultation Tracking Number associated with your IPaC species list in any request for consultation or correspondence about your project that you submit to our office. Please feel free to contact us at PIFWO_admin@fws.gov or 808-792-9400 if you need more current information or assistance regarding the potential impacts to federally listed species and federally designated critical habitat.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Pacific Islands Fish And Wildlife Office
300 Ala Moana Boulevard, Box 50088
Honolulu, HI 96850-5000
(808) 792-9400

PROJECT SUMMARY

Project Code: 2026-0012172
Project Name: Ho'onani Village
Project Type: Mixed-Use Construction
Project Description: Hoʻonani Village is envisioned as a high-density, master-planned, mixed-use community in the Kahului area of Central Maui. Hoʻonani Village (also referred to as “the project,” “the proposed project,” “the proposed action,” “the plan,” or “the land plan”) will consist of a mixed-use development consisting of approximately 1,608 multi-family residential housing units along with a blend of commercial, office, retail, restaurant, entertainment, industrial, potential hospitality uses on an approximately 166 acre site in Kahului. Additional infrastructure improvements, including drainage, an onsite wastewater treatment plant (WWTP) and offsite water system are also proposed to service the site.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@20.8709472,-156.449449857781,14z

Counties: Maui County, Hawaii

ENDANGERED SPECIES ACT SPECIES

There is a total of 19 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Hawaiian Hoary Bat *Lasiurus cinereus semotus*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/770
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6477.pdf

BIRDS

NAME	STATUS
Band-rumped Storm-petrel *Hydrobates castro*	Endangered

Population: USA (HI)
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1226
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6939.pdf

Hawaiian Coot (alae Ke`oke`o) *Fulica alai*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/7233
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6934.pdf

Hawaiian Duck *Anas wyvilliana*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/7712
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6934.pdf

Hawaiian Goose *Branta (=Nesochen) sandvicensis*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1627
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6925.pdf

Hawaiian Petrel *Pterodroma sandwichensis*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6746
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6939.pdf

Hawaiian Stilt *Himantopus mexicanus knudseni*	Endangered

No critical habitat has been designated for this species.

NAME	STATUS
Species profile: https://ecos.fws.gov/ecp/species/2082 General project design guidelines: https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6934.pdf	
Newell"s Shearwater *Puffinus newelli* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2048 General project design guidelines: https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6939.pdf	Threatened

REPTILES

NAME	STATUS
Hawksbill Sea Turtle *Eretmochelys imbricata* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered

INSECTS

NAME	STATUS
Blackburn's Sphinx Moth *Manduca blackburni* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4528 General project design guidelines: https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/6926.pdf	Endangered

FLOWERING PLANTS

NAME	STATUS
`awikiwiki *Canavalia pubescens* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7908	Endangered
`ena`ena *Pseudognaphalium sandwicensium var. molokaiense* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5993	Endangered
Awiwi *Schenkia sebaeoides* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7103	Endangered
Carter's Panicgrass *Panicum fauriei var. carteri* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5578	Endangered
Ihi *Portulaca villosa* No critical habitat has been designated for this species.	Endangered

NAME	STATUS
Species profile: https://ecos.fws.gov/ecp/species/4886	
Ko`oloa`ula *Abutilon menziesii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3268	Endangered
Ohai *Sesbania tomentosa* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8453 General project design guidelines: https://ipac.ecosphere.fws.gov/project/2OGAQNM56NAUVLBNJENZC6RCKA/documents/generated/7050.pdf	Endangered
Round-leaved Chaff-flower *Achyranthes splendens var. rotundata* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4709	Endangered
Vigna o-wahuensis There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8445	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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1. The Bald and Golden Eagle Protection Act of 1940.

2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
'apapane *Himatione sanguinea* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/9659	Breeds Dec 1 to Jul 31

NAME	BREEDING SEASON
Black Noddy *Anous minutus melanogenys* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/10559	Breeds Apr 1 to Nov 30
Bristle-thighed Curlew *Numenius tahitiensis* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/3913	Breeds elsewhere
Hawai'i 'amakihi *Chlorodrepanis virens* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/9655	Breeds Nov 15 to Aug 15
Maui 'alauahio *Paroreomyza montana* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/9663	Breeds Apr 15 to Aug 15
Red-tailed Tropicbird *Phaethon rubricauda melanorhynchos* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/10563	Breeds Dec 15 to Oct 15
Wandering Tattler *Tringa incana* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/11941	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

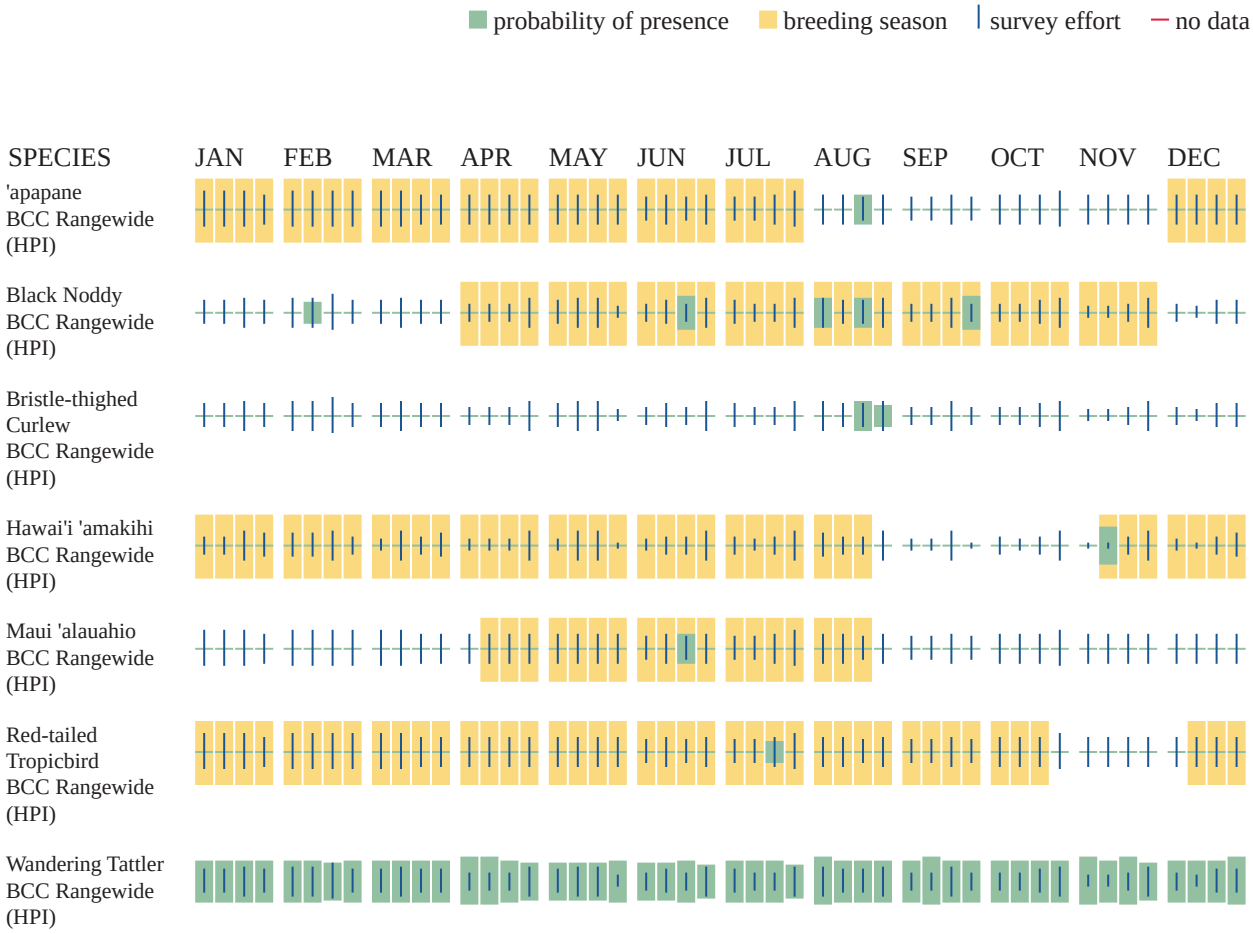
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R2UBHx
- R5UBFx

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Emily Murai
Address:	711 Kapiolani Blvd
Address Line 2:	1450
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U.S. Fish & Wildlife Service

General Project Design Guidelines (10 Species)

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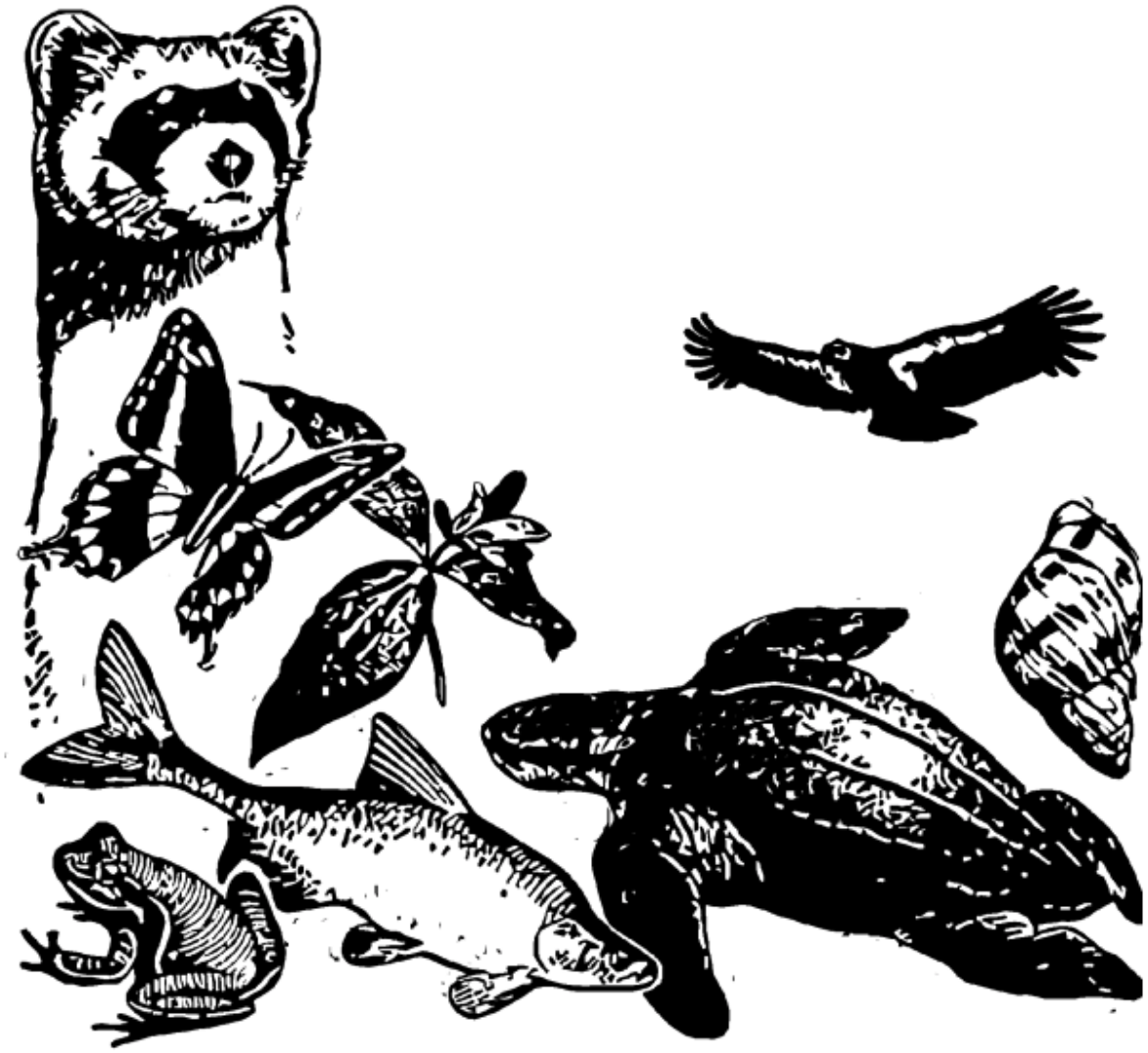

IPaC - Information for Planning and Consultation (https://ipac.ecosphere.fws.gov/): A project planning tool to help streamline the U.S. Fish and Wildlife Service environmental review process.

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Band-rumped Storm-petrel and 2 more species - Pacific Islands Fish And Wildlife Office 12

Hawaiian Hoary Bat - Pacific Islands Fish And Wildlife Office 14

Blackburn's Sphinx Moth - Pacific Islands Fish And Wildlife Office 16

Species Document Availability

Species with general design guidelines

Band-rumped Storm-petrel Hydrobates castro

Blackburn's Sphinx Moth Manduca blackburni

Hawaiian Coot (alae Ke`oke`o) Fulica alai

Hawaiian Duck Anas wyvilliana

Hawaiian Goose Branta (=Nesochen) sandvicensis

Hawaiian Hoary Bat Lasiurus cinereus semotus

Hawaiian Petrel Pterodroma sandwichensis

Hawaiian Stilt Himantopus mexicanus knudseni

Newell"s Shearwater Puffinus newelli

Ohai Sesbania tomentosa

Species without general design guidelines available

`awikiwiki Canavalia pubescens

`ena`ena Pseudognaphalium sandwicensium var. molokaiense

Awiwi Schenkia sebaeoides

Carter's Panicgrass Panicum fauriei var. carteri

Hawksbill Sea Turtle Eretmochelys imbricata

Ihi Portulaca villosa

Ko`oloa`ula Abutilon menziesii

Round-leaved Chaff-flower Achyranthes splendens var. rotundata

Vigna o-wahuensis

General Project Design Guidelines - Hawaiian Duck and 18 more species

Published by Pacific Islands Fish And Wildlife Office - Publication Date: February 1, 2022 for the following species included in your project

- Hawaiian Duck Anas wyvilliana
- Awiwi Schenkia sebaeoides
- Ohai Sesbania tomentosa
- Hawaiian Stilt Himantopus mexicanus knudseni
- Hawaiian Goose Branta (=Nesochen) sandvicensis
- Ko`oloa`ula Abutilon menziesii
- Round-leaved Chaff-flower Achyranthes splendens var. rotundata
- Band-rumped Storm-petrel Hydrobates castro
- Ihi Portulaca villosa
- Hawaiian Coot (alae Ke`oke`o) Fulica alai
- Hawaiian Hoary Bat Lasiurus cinereus semotus
- Hawaiian Petrel Pterodroma sandwichensis
- Newell"s Shearwater Puffinus newelli
- Carter's Panicgrass Panicum fauriei var. carteri
- `ena`ena Pseudognaphalium sandwicensium var. molokaiense
- Hawksbill Sea Turtle Eretmochelys imbricata
- `awikiwiki Canavalia pubescens
- Blackburn's Sphinx Moth Manduca blackburni
- Vigna o-wahuensis

Hawaiian waterbirds (Hawaiian stilt, *Himantopus mexicanus knudseni*; Hawaiian coot, *Fulica alai*; Hawaiian common gallinule, *Gallinula galeata sandvicensis*; Hawaiian duck, *Anas wyvilliana*):
Listed Hawaiian waterbirds are found in fresh and brackish-water marshes and natural or man-made ponds. Hawaiian stilts may also be found wherever ephemeral or persistent standing water may occur. Threats to these species include non-native predators, habitat loss, and habitat degradation. Hawaiian ducks are also subject to threats from hybridization with introduced mallards.

The creation of standing or open water may result in the attraction of Hawaiian waterbirds to a site (creative nuisance or habitat sink). In particular, the Hawaiian stilt is known to nest in sub-optimal locations (e.g. any ponding water), if water is present. Hawaiian waterbirds attracted to sub-optimal habitat may suffer adverse impacts, such as predation and reduced reproductive success, and thus the project may create an attractive nuisance. Therefore, we recommend you work with our office during project planning so that we may assist you in developing measures to avoid impacts to listed species (e.g., fencing, vegetation control, predator management).

To avoid and minimize potential project impacts to Hawaiian waterbirds we recommend you incorporate the following applicable measures into your project description:

- In areas where waterbirds are known to be present, post and enforce reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.
- Incorporate the Service's Best Management Practices for Work in Aquatic Environments into the project design.
- Have a biological monitor that is familiar with the species' biology conduct Hawaiian waterbird nest surveys, where appropriate habitat occurs within the vicinity of the proposed project site, prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). If a nest or active brood is found:
    - Contact the Service within 48 hours for further guidance.
    - Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.
    - Have a biological monitor that is familiar with the species' biology present on the project site during all construction or earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely impacted.

General Project Design Guidelines - Hawaiian Duck and 18 more species

Published by Pacific Islands Fish And Wildlife Office - Publication Date: April 1, 2022 for the following species included in your project

Hawaiian Duck Anas wyvilliana

Awiwi Schenkia sebaeoides

Ohai Sesbania tomentosa

Hawaiian Stilt Himantopus mexicanus knudseni

Hawaiian Goose Branta (=Nesochen) sandvicensis

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`awikiwiki Canavalia pubescens

Blackburn's Sphinx Moth Manduca blackburni

Vigna o-wahuensis

Avoidance, Minimization, and Conservation Measures for listed plants in the Pacific Islands

Project activities may affect listed plant species by causing physical damage to plant parts (roots, stems, flowers, fruits, seeds, etc.) as well as impacts to other life requisite features of their habitat which may result in reduction of germination, growth and/or reproduction. Cutting and removal of vegetation surrounding listed plants has the potential to alter microsite conditions (e.g., light, moisture, temperature), damaging or destroying the listed plants and also increasing the risk of invasion by nonnative plants which can result in higher incidence or intensity of fire. Activities such as grazing, use of construction equipment and vehicles, and increased human traffic (i.e. trails, visitation, monitoring), can cause ground disturbance, erosion, and/or soil compaction which decrease absorption of water and nutrients and damage plant root systems and may result in reduced growth and/or mortality of listed plants. Soil disturbance or removal has the potential to negatively impact the soil seed bank of listed plant species if such species are present or historically occurred in the project area.

In order to avoid or minimize potential adverse effects to listed plants that may occur on the proposed project site, we recommend minimizing disturbance outside of existing developed or otherwise modified areas. When disturbance outside existing developed or modified sites is proposed, conduct a botanical survey for listed plant species within the project action area, defined as the area where direct and indirect effects are likely to occur. Surveys should be conducted by a knowledgeable botanist with documented experience in identifying native Hawaiian and Pacific Islands plants, including listed plant species. Botanical surveys should optimally be conducted during the wettest part of the year (typically October to April) when plants and identifying features are more likely to be visible, especially in drier areas. If surveys are conducted outside of the wet season, the Service may assume plant presence.

The boundary of the area occupied by listed plants should be marked with flagging by the surveyor. To avoid or minimize potential adverse effects to listed plants, we recommend adherence to buffer distances for the activities in the **Table below**. Where disturbed areas do not need to be maintained as an open area, restore disturbed areas using native plants as appropriate for the location. Whenever possible we recommend using native plants for landscaping purposes. The following websites are good resources to use when choosing landscaping plants: Landscape Industry Council of Hawai‘i Native Plant Poster (http://hawaiiscape.wpengine.com/publications/), Native Hawaiian Plants for Landscaping, Conservation, and Reforestation (https://www.ctahr.hawaii.edu/oc/freepubs/pdf/of-30.pdf), and Best Native Plants for Landscapes (https://www.ctahr.hawaii.edu/oc/freepubs/pdf/OF-40.pdf).

If listed plants occur in a project area, the avoidance buffers are recommended to reduce direct and indirect impacts to listed plants from project activities. However, where project activities will occur within the recommended buffer distances, additional consultation is required. The impacts to the plants of concern within the buffer area may be reduced by placing temporary fencing or other barriers at the boundary of the disturbance, as far from the affected plants as practicable.

The above guidelines apply to areas outside of designated critical habitat. If project activities occur within designated critical habitat unit boundaries, additional consultation is required.

All activities, including site surveys, risk introducing nonnative species into project areas. Specific attention needs to be made to ensure that all equipment, personnel and supplies are properly checked and are free of contamination (weed seeds, organic matter, or other contaminants) before entering project areas. Quarantines and or management activities occurring on specific priority invasive species proximal to project areas need to be considered or adequately addressed. This information can be acquired by contacting local experts such as those on local invasive species committees (Kauai: https://www.kauaiisc.org/; Oahu: https://www.oahuisc.org/; Maui Nui: https://mauiinvasive.org/; and Hawaii: https://www.biisc.org/

Table 1. Recommended buffer distances to minimize and avoid potential adverse impacts to listed plants from activities listed below.

Action	**Buffer Distance (feet (meters)) - Keep Project Activity This Far Away from Listed Plant**	
	Grasses/Herbs/Shrubs and Terrestrial Orchids	**Trees and Arboreal Orchids**
Walking, hiking, surveys	3 ft (1 m)	3 ft (1 m)
Cutting and Removing Vegetation By Hand or Hand Tools (e.g., weeding)	3 ft (1 m)	3 ft (1 m)
Mechanical Removal of Individual Plants or Woody Vegetation (e.g., chainsaw, weed eater)	3 ft up to height of removed vegetation (whichever greater)	3 ft up to height of removed vegetation (whichever greater)
Removal of Vegetation with Heavy Equipment (e.g., bulldozer, tractor, "bush hog")	2x width equipment + height of vegetation	820 ft (250 m)

Use of Approved Herbicides (following label)	**Ground-based Spray Application; hand application (no wand applicator; spot treatment)**	10 ft (3 m)	Crown diameter
	Ground-based Spray Application; manual pump with wand, backpack	50 ft (15 m)	Crown diameter
	Ground-based Spray Application; vehicle-mounted tank sprayer	50 ft (15 m)	Crown diameter
	Aerial Spray (ball applicator)	250 ft (76 m)	250 ft (76 m)
	Aerial Application – herbicide ballistic technology (individual plant treatment)	100 ft (30 m)	Crown diameter
	Aerial Spray (boom)	Further consultation required	Further consultation required
Use of Insecticides (pollinators, seed dispersers)		Further consultation required	Further consultation required
Ground/Soil Disturbance/Outplanting/Fencing (Hand tools, e.g. shovel, `ō`ō; Small mechanized tools, e.g., auger)		20 ft (6 m)	2x crown diameter
Ground/Soil Disturbance (Heavy Equipment)		328 ft (100 m)	820 ft (250 m)
Surface Hardening/Soil compaction	**Trails (e.g., human, ungulates)**	20 ft (6 m)	2x crown diameter
	Roads/Utility Corridors, Buildings/Structures	328 ft (100 m)	820 ft (250 m)
Prescribed Burns		Further consultation required	Further consultation required
Farming/Ranching/Silviculture		820 ft (250 m)	820 ft (250 m)

Definitions (Wagner *et al*. 1999)

Crown: The leafy top of a tree.
Herb: A plant, either annual, biennial, or perennial, with the non-woody stems dying back to the ground at the end of the growing season.
Shrub: A perennial woody plant with usually several to numerous primary stems arising from or relatively near the ground.
Tree: A woody perennial that usually has a single trunk

References Cited

USFWS. 2010. Endangered and threatened wildlife and plants; determination of endangered status for 48 species on Kauai and designation of critical habitat. Federal Register 75: 18960–19165.

. 2012. Endangered and threatened wildlife and plants; endangered status for 23 species on Oahu and designation of critical habitat for 124 species; final rule. Federal Register 77: 57648–57862.

. 2013a Endangered and threatened wildlife and plants; determination of endangered status for 38 species from Molokai, Lanai, and Maui. Federal Register 78: 32014–32065.

. 2013b. Endangered and threatened wildlife and plants; determination of endangered species status for 15 species on Hawaii Island. Federal Register 78: 64638–64690.

. 2016. Endangered and threatened wildlife and plants; determination of endangered status for 49 species from the Hawaiian Islands. Federal Register 81: 67786–67860.

. 2016. USFWS Rare plant database. Unpublished.

Wagner, W.L., Sohmer, S., and D.R. Herbst. 1999. Manual of the flowering plants of Hawaii, revised edition. Honolulu, Hawaii. University of Hawaii and Bishop Museum Press. 1,919 pp.

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- Blackburn's Sphinx Moth Manduca blackburni
- Vigna o-wahuensis

Hawaiian goose (nene), (*Branta (Nesochen) sandvicensis*): Nene are found on the islands of Hawaii, Maui, Molokai, and Kauai. They are observed in a variety of habitats, but prefer open areas, such as pastures, golf courses, wetlands, natural grasslands and shrublands, and lava flows. Threats to the species include introduced mammalian and avian predators, wind facilities, and vehicle strikes.

To avoid and minimize potential project impacts to nene we recommend you incorporate the following measures into your project description:

- Do not approach, feed, or disturb nene.
- If nene are observed loafing or foraging within the project area during the breeding season (September through April), have a biologist familiar with nene nesting behavior survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).
- Cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 150 feet of proposed project, or a previously undiscovered nest is found within the 150-foot radius after work begins.
- In areas where nene are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.

nene 4(d) rule: A 4(d) rule was established at the time the nene was downlisted to threatened status. Under the 4(d) rule, the following actions are not prohibited under the Act, provided the additional measures described in the downlisting rule are adhered to:

- Take by landowners, or their agents, conducting intentional harassment in the form of hazing or other deterrent measures not likely to cause direct injury or mortality, or nene surveys.
- Take that is incidental to conducting lawful control of introduced predators or habitat management activities for nene.
- Take by authorized law enforcement officers for the purpose of aiding or euthanizing sick, injured, or orphaned nene; disposing of dead specimens; and salvaging a dead specimen that may be used for scientific study.

General Project Design Guidelines - Hawaiian Duck and 18 more species

Published by Pacific Islands Fish And Wildlife Office - Publication Date: February 1, 2022 for the following species included in your project

- Hawaiian Duck Anas wyvilliana
- Awiwi Schenkia sebaeoides
- Ohai Sesbania tomentosa
- Hawaiian Stilt Himantopus mexicanus knudseni
- Hawaiian Goose Branta (=Nesochen) sandvicensis
- Ko`oloa`ula Abutilon menziesii
- Round-leaved Chaff-flower Achyranthes splendens var. rotundata
- Band-rumped Storm-petrel Hydrobates castro
- Ihi Portulaca villosa
- Hawaiian Coot (alae Ke`oke`o) Fulica alai
- Hawaiian Hoary Bat Lasiurus cinereus semotus
- Hawaiian Petrel Pterodroma sandwichensis
- Newell"s Shearwater Puffinus newelli
- Carter's Panicgrass Panicum fauriei var. carteri
- `ena`ena Pseudognaphalium sandwicensium var. molokaiense
- Hawksbill Sea Turtle Eretmochelys imbricata
- `awikiwiki Canavalia pubescens
- Blackburn's Sphinx Moth Manduca blackburni
- Vigna o-wahuensis

Endangered Hawaiian petrel (*Pterodroma sandwichensis*), Threatened Newell's shearwater (*Puffinus auricularis newelli*), and Endangered Hawaii Distinct Population Segment of the band-rumped storm-petrel (*Oceanodroma castro*):
Hawaiian seabirds may traverse the project area at night during the breeding, nesting and fledging seasons (March 1 to December 15). Outdoor lighting could result in seabird disorientation, fallout, and injury or mortality. Seabirds are attracted to lights and after circling the lights they may become exhausted and collide with nearby wires, buildings, or other structures or they may land on the ground. Downed seabirds are subject to increased mortality due to collision with automobiles, starvation, and predation by dogs, cats, and other predators. Young birds (fledglings) traversing the project area between September 15 and December 15, in their first flights from their mountain nests to the sea, are particularly vulnerable to light attraction.

To avoid and minimize potential project impacts to seabirds we recommend you incorporate the following measures into your project description:

- Fully shield all outdoor lights so the bulb can only be seen from below.
- Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Avoid nighttime construction during the seabird fledging period, September 15 through December 15.

Listed seabirds have been documented colliding with communication towers, particularly in areas of high seabird passage rate. In general, self-supporting monopoles are the least likely to result in collisions, whereas lattice towers, particularly those that rely on guy-wires, have a greater risk.

To avoid and minimize the likelihood that towers will result in collisions by listed seabirds we recommend you incorporate the following measures into your project description:

- The profile of the tower should be as small as possible, minimize the extent of the tower that protrudes above the surrounding vegetation layer, and avoid the use of guywires.
- If the top of the tower must be lit to comply with Federal Aviation Administration regulations, use a flashing red light verses a steady-beam red or white light.
- If possible, co-locate with existing towers or facilities.

Seabirds have been known to collide with fences, powerlines, and other structures near nesting colonies. To avoid and minimize the likelihood of collision we recommend you incorporate the following measures into your project description:

- Where fences extend above vegetation, integrate three strands of polytape into the fence to increase visibility.
- For powerlines, guywires and other cables, minimize exposure above vegetation height and vertical profile.

General Project Design Guidelines - Hawaiian Duck and 18 more species

Published by Pacific Islands Fish And Wildlife Office - Publication Date: March 1, 2020 for the following species included in your project

- Hawaiian Duck Anas wyvilliana
- Awiwi Schenkia sebaeoides
- Ohai Sesbania tomentosa
- Hawaiian Stilt Himantopus mexicanus knudseni
- Hawaiian Goose Branta (=Nesochen) sandvicensis
- Ko`oloa`ula Abutilon menziesii
- Round-leaved Chaff-flower Achyranthes splendens var. rotundata
- Band-rumped Storm-petrel Hydrobates castro
- Ihi Portulaca villosa
- Hawaiian Coot (alae Ke`oke`o) Fulica alai
- Hawaiian Hoary Bat Lasiurus cinereus semotus
- Hawaiian Petrel Pterodroma sandwichensis
- Newell"s Shearwater Puffinus newelli
- Carter's Panicgrass Panicum fauriei var. carteri
- `ena`ena Pseudognaphalium sandwicensium var. molokaiense
- Hawksbill Sea Turtle Eretmochelys imbricata
- `awikiwiki Canavalia pubescens
- Blackburn's Sphinx Moth Manduca blackburni
- Vigna o-wahuensis

Hawaiian hoary bat (*Lasiurus cinereus semotus*): The Hawaiian hoary bat roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away. Additionally, Hawaiian hoary bats forage for insects from as low as 3 feet to higher than 500 feet above the ground and can become entangled in barbed wire used for fencing.

To avoid and minimize impacts to the endangered Hawaiian hoary bat we recommend you incorporate the following applicable measures into your project description:

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15).
- Do not use barbed wire for fencing.

General Project Design Guidelines - Hawaiian Duck and 18 more species

Published by Pacific Islands Fish And Wildlife Office - Publication Date: February 1, 2022 for the following species included in your project

- Hawaiian Duck Anas wyvilliana
- Awiwi Schenkia sebaeoides
- Ohai Sesbania tomentosa
- Hawaiian Stilt Himantopus mexicanus knudseni
- Hawaiian Goose Branta (=Nesochen) sandvicensis
- Ko`oloa`ula Abutilon menziesii
- Round-leaved Chaff-flower Achyranthes splendens var. rotundata
- Band-rumped Storm-petrel Hydrobates castro
- Ihi Portulaca villosa
- Hawaiian Coot (alae Ke`oke`o) Fulica alai
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- Carter's Panicgrass Panicum fauriei var. carteri
- `ena`ena Pseudognaphalium sandwicensium var. molokaiense
- Hawksbill Sea Turtle Eretmochelys imbricata
- `awikiwiki Canavalia pubescens
- Blackburn's Sphinx Moth Manduca blackburni
- Vigna o-wahuensis

Blackburn's sphinx moth (*Manduca blackburni*):
Adult Blackburn's sphinx moths feed on nectar from native plants, including beach morning glory (*Ipomoea pes-caprae*), iliee (*Plumbago zeylanica*), and maiapilo (*Capparis sandwichiana*); larvae feed upon non-native tree tobacco (*Nicotiana glauca*) and native aiea (*Nothocestrum* sp.). To pupate, the larvae burrow into the soil and can remain in a state of torpor for a year or more before emerging from the soil. Soil disturbance can result in death of the pupae.

We offer the following survey recommendations to assess whether the Blackburn's sphinx moth is within the project area:

- A biologist familiar with the species should survey areas of proposed activities for Blackburn's sphinx moth and its larval host plants prior to work initiation.
    - Surveys should be conducted during the wettest portion of the year (usually November-April or several weeks after a significant rain) and within 4-6 weeks prior to construction.
    - Surveys should include searches for eggs, larvae, and signs of larval feeding (chewed stems, frass, or leaf damage).
    - If native aiea or tree tobacco over 3 feet tall, or adult Blackburn's sphinx moths are found during surveys, do not disturb them and contact the Service for additional guidance to avoid take.

If no Blackburn's sphinx moth, aiea, or tree tobacco are found during surveys, it is imperative that measures be taken to avoid attraction of Blackburn's sphinx moth to the project location and prohibit tree tobacco from entering the site. Tree tobacco can grow greater than 3 feet tall in approximately 6 weeks. If it grows over 3 feet after surveys have been completed, the plants may become a host plant for Blackburn's sphinx moth larvae. We therefore recommend that you:

- Remove any tree tobacco less than 3 feet tall.
- Monitor the site every 4-6 weeks for new tree tobacco growth before, during, and after the proposed ground-disturbing activity. This monitoring for can be completed by any staff, such as groundskeeper or regular maintenance crew, if they are provided with picture placards of tree tobacco at different life stages.

APPENDIX ‘O’ – LANDSCAPE MASTER PLAN

Landscape Concept Site Plan

Ho'onani Master Plan Kahului, Maui, Hawaii

HAWAII LAND DESIGN

11-25-25

PARKING LOT TREES

Monkeypod Tree *Samanea saman*

Rainbow Shower Tree *Cassia x nealiae*

Pink Tecoma *Tabebuia heterophylla*

Milo *Thespesia populnea**

Hong Kong Orchid Tree *Bauhinia x blakeana*

Harpullia pendula *Sapindaceae tulipwood*

Olapa *Cheirodendron trigynum**

Ohe Makai *Reynoldsia sandwicensis**

Silver Buttonwood *Conocarpus erectus*

Kou Haole *Cordia sebestena*

Hao Rauvolfia sandwicensis*

Royal Poinciana *Delonix regia*

STREET TREES

Rainbow Shower Tree Cassia x nealiae

Pink Tecoma *Tabebuia rosea*

Ohe Makai Reynoldsia sandwicensis*

Milo *Thespesia populnea**

Hong Kong Orchid Tree *Bauhinia x blakeana*

False Olive *Elaeodendron orientale*

Yellow Geiger Cordia lutea

Ohia Lehua *Metrosideros polymorpha**

Kou Haole *Cordia sebestena*

MEDIUM/ SMALL FLOWERING TREES

Jatropha *Integerrima 'Compacta'*

Plumeria varieties *Plumeria var.*

Orange Kou *Cordia subcordata*

*Denotes Native Plant

PALMS

Queen Palm *Syagrus romanzoffiana*

Joannis palm *Veitchia joannis*

Foxtail Palm Wodyetia bifurcata

Fiji Fan Palm *Pritchardia thurstonii*

Manila palm *Veitchia merrillii*

Loulu *Pritchardia hillebrandii**

Coconut *Cocos nucifera**

Date Palm *Phoenix dactylifera*

Dwarf date Palm *Phoenix roebelinii*

Caribbee Royal Palm *Roystonea oleracea*

Cuban Royal Palm *Roystonea regea*

Areca Palm *Chrysalidocarpus lutescens*

Blue Latan Palm *Latania loddigesii*

Triangle Palm *Dypsis decaryl*

Rhapis Palm *Rhapis excelsa*

Sago Palm *Cycas revoluta*

Hala *Pandanus tectorius **

SHRUBS

Bird of Paradise *Strelizia reginae*

Indian Hawthorn *Raphilopis indica*

Plumbago *Plumbago capensis*

Spider Lily *Crinum asiaticum*

Tiare Gardenia *Gardenia taitensis*

Croton *Codiaeum veriegatum*

Naupaka *Scaevola taccada **

Red Ixora *Ixora coccinea*

Ulei *Osteomeles anthyllidifolia**

Golden Eldorado *pseuderanthemum reticulatum*

Mexican Bird of Paradise *Caesalpinia pulcherrima*

A'a li'i *Dodonaeae viscosa **

Naio *Myoporum sandwicense **

Hibiscus varieties *Hibiscus var.*

Leea *Leea coccinea*

Mock Orange *Murraya paniculata*

Natal Plum *Carissa grandiflora*

Ma'o *Gossypium tomentosum**

Cape Honeysuckle *Tecoma capensis*

Bougainvillea *sp.*

Snowbush *Breynia nivosa rosi-picta*

Koki'o ke'oke'o *Hibiscus waimeae**

Ti Plant *Cordyline fruticose*'*

Firecracker Plant *Russelia equisetiformis*

Ape *Alocasia macrorrhizos*

Golden Duranta *Duranta erecta*

Beef Stake Plant *Perilla*

Kalo *Colocasia esculenta*

Red Ginger *Alpinia purpurata*

Parrots Beak *Heliconia* Heliconia psittacorum

GROUND COVER

Blue Daze *Euvolulus 'blue daze'*

Laua'e Fern *Polypodium phymatodes* •

Syngonium *Syngonium podophyllum*

Golden Glory *Arachis pintoi*

Akoko *Chamaeyce degeneri **

Akulikuli *Sesuvium portulacastrum **

Beach Morning-glory *Pohuehue**

Dwarf Natal Plum *Carissa macrocarpa*

Maiapilo *Capparis sandwichiana**

Nehe *Lipochaeta inegrifolia **

Ohai *Sesbania tomentosa**

Pohinahina *Vitex rotundifolia**

Akia *Wikstroemia uva-ursi **

Ruellia *Ruellia brittoniana*

Ilima Papa *Sida fallax **

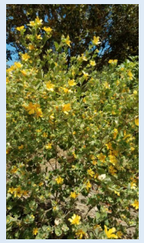
Lilyturf *Liriope spicata*

Oyster Plant *Tradescantia spathacea*

Purple Heart *Tradescantia pallida*

Wax Ficus *Ficus macrocarpa*

Kupukupu Fern *Nephrolepis sp.**



GRASS

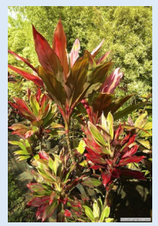
Bermuda *Cynodon dactylon*

Zoysia Meyer *Zoysia japonica*

Seashore Paspalum *Paspalum vaginatum*

Pili grass *Heteropogon contortus**

Kāwelu *Eragrostis variabilis **



Proposed Plant Palette

Ho'onani Master Plan

Kahului, Maui, Hawaii

HAWAII LAND DESIGN

11-25-25

APPENDIX ‘P’ – AIR QUALITY ASSESSMENT AND CLIMATE CHANGE STUDY

HOʻONANI VILLAGE MIXED-USE DEVELOPMENT PROJECT

Air Quality and Climate Change Study

Prepared for:

Hoʻonani Development LLC

Prepared by:

Terry A. Hayes Associates Inc.

January 2026

taha
environmental planners

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1.0 SUMMARY OF FINDINGS

Terry A. Hayes Associates Inc. (TAHA) has completed an Air Quality and Climate Change Study (Study) for the Hoʻonani Village Mixed-Use Development Project (proposed project). Key findings are listed below.

- The proposed project would generate temporary construction emissions of criteria air pollutants. The primary sources of pollutant emissions during construction activities would be exhaust from diesel-powered equipment and trucks. Construction emissions would be temporary and would cease upon completion of activities.
- Construction activities could generate fugitive dust, although it would be minimized by utilizing control measures. The proposed project will follow reasonable control measures included in the Hawaii State Department of Health (DOH) Clean Air Branch Fugitive Dust Fact Sheet (April 2019) to reduce fugitive dust. Control measures include, but are not limited to, fugitive dust control plans, watering as necessary to maintain soils in a damp condition, limiting the amount of exposed areas through planning and timing of project phases, and covering temporarily exposed areas with mulch. Which control measures to implement is/are the responsibility of the owner, project manager, or operator of the site in response to the County of Maui's grading permit and National Pollutant Discharge Elimination System (NPDES) permit requirements from the Hawaii DOH. The site topography and surroundings, soil conditions, meteorological conditions, site activities, site equipment, and types of material processed must be considered. Generally, dry and windy conditions will require more control measures than rainy and calm periods.
- The proposed project would not result in adverse effects related to regional operational emissions. Vehicle exhaust associated with residential trips would be the primary source of direct emissions. The entirety of Maui is designated as attainment of the ambient air quality standards, and mobile source emissions from the proposed project vehicle trips would not have the potential to compromise the attainment designations by deteriorating air quality.
- Implementation of the proposed project would generate temporary (e.g., construction equipment and vehicle exhaust) and permanent (e.g., residential vehicle exhaust, utility use) greenhouse gas (GHG) emissions. Construction-related GHG emissions, which are quantified and disclosed within the Study, would be temporary and not significant. Cumulatively, permanent emissions would be unavoidable but not significant because the proposed project would not interfere with the development of clean energy supply in Hawaii.
- The State of Hawaii is committed to renewable energy production, which does not generate GHG emissions. Hawaii has enacted a law that mandates that all of the State's electricity comes from renewable sources no later than 2045. The proposed project is anticipated to be fully built out by 2035. Project-related indirect emissions would decline as the State moves toward a fully renewable supply of energy.

2.0 INTRODUCTION

2.1 PURPOSE

The use of Maui County lands requires preparation of an Environmental Impact Statement (EIS) pursuant to Chapter 343-5(a)(1);(e) of the Hawaii Revised Statutes. This Study is intended to inform the EIS being prepared in accordance with the Hawaii Environmental Policy Act (HEPA). The purpose of the Study is to evaluate the potential for adverse air quality and GHG emissions effects associated with implementation of the proposed project. The Study addresses both temporary, short-term emissions that would be generated during construction of the proposed project, as well as long-term emissions associated with future operations.

2.2 PROJECT DESCRIPTION

The proposed project includes the development of Hoʻonani Village, an approximately 166.511-acre site, envisioned as a high-density, master-planned, mixed-use community in the Puʻunēnē-Kahului area of Central Maui on currently vacant, former agricultural lands. **Figure 1** shows the regional location and **Figure 2** shows the project location.

The proposed project would consist of a mixed-use development with approximately 1,608 multi-family residential housing units along with a blend of commercial, office, retail, restaurant, entertainment, light industrial, and hospitality uses. All the housing units are intended to be affordable rental units. The hospitality development would consist of a 240-key dual-brand hotel with shared amenities. Access to the project site is planned to be provided from Pūlehu Road and Hansen Road, both of which are County roadways. Improvements to these County roads would be completed to meet the requirements of the County of Maui's Street Design Manual. Infrastructure to support the Project will be installed within portions of these County rights-of-way. Within the project site, an internal roadway network will connect individual uses within the proposed project. Pedestrian and bicycle circulation will be created within the proposed project with on-street sidewalks and a system of multi-use paths to connect the various uses and to emphasize multi-modal transportation within the development. Additional infrastructure improvements, including drainage management in an onsite detention basin, the potential construction of an onsite wastewater treatment plant, and an offsite water system are also proposed. **Figure 3** shows the site plan.

The proposed project would be developed in nine phases beginning in January 2028 and ending in June 2042.

FIGURE 1

REGIONAL LOCATION MAP

SOURCE: COUNTY OF MAUI QPUBLIC GIS POWERED BY ESRI.

Project HOONANI VILLAGE	**Designed by** TCC	**Date** 08/2024	PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING · LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU, HAWAII PH: 808.400.5959 WWW.PD-GRP.COM	**Sheet** 1 of 1
No. H109-001	**Drawn by** TCC	**Date** 08/2024		
	Horiz. Scale:	**Vert. Scale:**		
		Type PLANNING		

FIGURE 2

PROPERTY LOCATION MAP

SOURCE: COUNTY OF MAUI QPUBLIC GIS POWERED BY ESRI.

Project HOONANI VILLAGE	**Designed by** TCC	**Date** 08/2024	PIONEER DESIGN GROUP – HAWAII LLC CIVIL ENGINEERING · LAND USE PLANNING CONSTRUCTION MANAGEMENT HONOLULU, HAWAII PH: 808.400.5959 WWW.PD-GRP.COM	**Sheet** 1 of 1
No. H109-001	**Drawn by** TCC	**Date** 08/2024		
	Horiz. Scale:	**Vert. Scale:**		
		Type PLANNING		

Source: AO, 2024.

HO'ONANI VILLAGE MIXED-USE DEVELOPMENT PROJECT
AIR QUALITY & CLIMATE CHANGE STUDY

TAHA 2024-047 • HO'ONANI DEVELOPMENT LLC

Conceptual Site Plan

Figure 3

3.0 TOPICAL BACKGROUND & REGULATORY FRAMEWORK

This section provides an overview of how ambient air quality is characterized and the applicable regulations that have been established to protect public health and the environment, as well as a discussion of GHG emissions, how they contribute to climate change, and the regulatory framework developed to reduce GHG emissions. According to the DOH, air pollution is a general term that refers to the presence in the outdoor air of substances in quantities and for durations which may endanger human health or welfare, plant or animal life, or property, or may reasonably interfere with the comfortable enjoyment of life and property.

Through extensive scientific research, specific chemical substances have been identified as air pollutants that are known to cause adverse health effects and degradation of environmental quality. Concentrations of the following pollutants in ambient air are regulated at the federal and state level to protect public health and the environment. A separate discussion of GHG emissions and climate change is provided subsequently.

3.1 AIR POLLUTANTS

This Study discusses pollutants from two perspectives: the mass amount of emissions released to the atmosphere and pollutant concentrations in ambient air. “Emissions” refer to the quantity of pollutant released into the air, measured in pounds per day (ppd) or tons per year (tpy) in this Study. “Concentrations” refer to a way to describe how much of a pollutant is in the air. Concentration is usually shown as an amount, or mass, of pollutant per certain volume of air, measured in parts per million (ppm) for gaseous pollutants and micrograms per cubic meter ($\mu g/m^3$) for pollutants in the particulate phase in this Study.[1] Air pollutants are presented as criteria pollutants, GHGs, hazardous air pollutants (HAPs), and nuisance pollutants such as odors and dust.

Criteria Pollutants

Ozone (O_3). O_3 is the main constituent in photochemical air pollution. It is formed in the atmosphere by a chemical reaction of nitrogen oxides (NOx) and volatile organic compounds (VOCs) in the presence of sunlight. In the upper atmosphere, O_3 shields the earth from harmful ultraviolet radiation; however, at ground level, it can cause harmful effects in humans and plants.[2]

Nitrogen Dioxide (NO_2). NO_2 is a brownish, highly corrosive gas with a pungent odor. It is formed in the atmosphere from emissions of nitrogen oxides (NO_X). Sources of NO_X include electric utilities, industrial boilers, motor vehicle exhaust, and combustion of fossil fuels. NO_2 is also a component in the atmospheric reaction that produces ground-level ozone.[3]

Carbon Monoxide (CO). CO is a colorless, odorless, tasteless gas under atmospheric conditions. It is produced by the incomplete combustion of carbon fuels with the majority of emissions coming from transportation sources.[4] CO can be emitted by volcanoes. However, it is rarely abundant

[1] USEPA, *AirToxScreen Glossary of Terms*, 2023. Available at: https://www.epa.gov/AirToxScreen/airtoxscreen-glossary-terms; Accessed April 2, 2025.
[2] Hawaii State Department of Health, *Annual Summary 2023 Air Quality Data*, September 2024.
[3] I*bid*.
[4] I*bid*.

enough in volcanic gases to cause serious problems. Volcanic gases contain between 0.01 and two percent CO.[5]

Sulfur Dioxide (SO_2). SO_2 is a colorless gas that easily combines with water vapor forming sulfuric acid. Emissions of SO_2 are largely from sources that burn fossil fuels such as coal and oil. In Hawaii, another possible major source of SO_2 emissions is from any active eruption of Kilauea Volcano on the Big Island.[6]

Particulate Matter. Particulate matter refers to a wide range of solid or liquid particles in the atmosphere, including smoke, dust, aerosols, and metallic oxides. Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM_{10}. $PM_{2.5}$ includes a subgroup of finer particles that have an aerodynamic diameter of 2.5 micrometers or less. Some particulate matter, such as pollen, is naturally occurring. Particulate matter emissions in the Hawaiian Islands are typically caused by volcanic eruptions, combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Volcanic sources of particulate matter can be substantial in Hawaii depending on the activity and wind direction.[7] The United States Environmental Protection Agency (USEPA) Particulate Matter standards apply only to these fine particles.

Lead (Pb). Sources of lead emissions vary from one area to another. At the national level, major sources of lead in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters. As a result of USEPA's regulatory efforts including the removal of lead from motor vehicle gasoline, levels of lead in the air decreased by 98 percent between 1980 and 2014.[8]

Hazardous Air Pollutants (HAPs)

HAPs, also known as toxic air pollutants or air toxics, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Examples of toxic air pollutants include benzene, which is found in gasoline; perchloroethylene, which is emitted from some dry-cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries. Examples of other listed air toxics include dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium, and lead compounds.[9]

Nuisance Pollutants (Odors and Dust)

Other air quality issues of concern include nuisance impacts of odors and dust. Objectionable odors may be associated with a variety of pollutants. Common sources of odors include wastewater treatment plants, landfills, composting facilities, refineries, and chemical plants. Similarly, nuisance dust may be generated by a variety of sources including quarries, agriculture,

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[5] University Corporation for Atmospheric Research, *Carbon Monoxide Fact Sheet*, 2017. https://scied.ucar.edu/learning-zone/air-quality/carbon-monoxide. Accessed April 2, 2025.

[6] Hawaii State Department of Health, *Annual Summary 2020 Air Quality Data*, December 2021.

[7] U.S. Geological Survey, *Frequently Asked Questions About Volcanic Smog* (VOG). 2023. https://www.usgs.gov/observatories/hawaiian-volcano-observatory/frequently-asked-questions-about-volcanic-smog-vog. Accessed April 2, 2025.

[8] USEPA, *Basic Information About Lead Air Pollution*, 2023. https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution#how. Accessed April 2, 2025.

[9] USEPA, *What are Hazardous Air Pollutants?*, https://www.epa.gov/haps/what-are-hazardous-air-pollutants. Accessed April 2, 2025.

grading, and construction. Odors rarely have direct health impacts, but they can be very unpleasant and can lead to anger and concern over possible health effects among the public.

3.2 AIR QUALITY REGULATORY FRAMEWORK

Federal Regulations

United States Environmental Protection Agency (USEPA). At the federal level, the USEPA has been charged with implementing national air quality programs. The USEPA's authority over air quality is drawn primarily from the Federal Clean Air Act (FCAA), which was enacted in 1963. The FCAA was amended in 1970, 1977, and most recently in 1990. The FCAA required the USEPA to establish primary and secondary National Ambient Air Quality Standards (NAAQS) — concentrations of pollutants with the goal that they are not to be exceeded—shown below in **Table 3-1**. If concentrations exceed the NAAQS threshold, the area is considered to be in nonattainment. The NAAQS were devised to protect public health, reduce smog, and prevent degradation of environmental quality. Attainment of the NAAQS is achieved by demonstrating that measured concentrations of criteria pollutants for a region remained below the designated thresholds over a period of three years. The attainment status for Hawaii for each criteria air pollutant is shown in **Table 3-1**.

The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAA Amendments of 1990 (FCAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. USEPA has responsibility to review all state SIPs to determine conformation to the mandates of the FCAAA and determine if implementation will achieve air quality goals. Hawaii does not have a SIP because, as shown in **Table 3-1**, the State is in attainment with all NAAQS.

State Regulations

Hawaii State Department of Health (DOH). The DOH Clean Air Branch is responsible for air pollution control in the State. The primary services of the branch are provided by its three sections: Engineering, Monitoring, and Enforcement. These sections conduct engineering analysis and permitting, perform monitoring and investigations, and enforce the federal and State air pollution control laws and regulations. The DOH Hawaii Administrative Rules (HAR) include two chapters representing the Clean Air Branch. Chapter 59 identifies State ambient air quality standards (**Table 3-1**), and Chapter 60 discusses air pollution control methodology. Chapter 60 includes air permitting, sampling, modeling, and fugitive dust and motor vehicle provisions.

TABLE 3-1: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS

Pollutant	Averaging Period	State		Federal	
		Standard	Attainment Status	Standard	Attainment Status
Ozone (O_3)	8-hour Average	0.08 ppm	Attainment	0.07 ppm (137 µg/m^3)	Attainment
Respirable Particulate Matter (PM_{10})	24-hour Average	150 µg/m^3	Attainment	150 µg/m^3	Attainment
	Annual Arithmetic Mean	50 µg/m^3	Attainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour Average	--	--	35 µg/m^3	Attainment
	Annual Arithmetic Mean	--	--	9.0 µg/m^3	Attainment
Carbon Monoxide (CO)	8-hour Average	4.4 ppm	Attainment	9 ppm (10 mg/m^3)	Attainment
	1-hour Average	9 ppm	Attainment	35 ppm (40 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.04 ppm	Attainment	53 ppb (100 µg/m^3)	Attainment
	1-hour Average	--	--	100 ppb (188 µg/m^3)	Attainment
Sulfur Dioxide (SO_2)	24-hour Average	0.14 ppm	Attainment	--	--
	3-hour Average	0.5 ppm	Attainment	--	--
	1-hour Average	--	--	75 ppb (196 µg/m^3)	Attainment
	Annual Arithmetic Mean	0.03 ppm	Attainment	10 ppb	--
Lead (Pb)	Rolling 3-Month Average	1.5 µg/m^3	--	0.15 µg/m^3	--
Hydrogen Sulfide (H_2S)	1-hour Average	0.025 ppm	Attainment	--	--

SOURCE: Hawaii State DOH, *Federal and State Ambient Air Quality Standards*, November 19, 2015; Hawaii State DOH, *State of Hawaii Annual Summary 2024 Air Quality Data,* September 2025.

Chapter 60 §11-60.1-33 of the HAR includes the following fugitive dust prohibitions:

- No person shall cause or permit visible fugitive dust to become airborne without taking reasonable precautions. Examples of reasonable precautions are:
  - Use of water or suitable chemicals for control of fugitive dust in the demolition of any buildings or structures, construction operations, the grading of roads, or clearing of land;
  - Application of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which may result in fugitive dust;
  - Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Reasonable containment methods shall be employed during sandblasting or other similar operations;
  - Covering all moving, open-bodied trucks transporting materials which may result in fugitive dust;
  - Conducting agricultural operations, such as tilling of land and the application of fertilizers, in such manner as to reasonably minimize fugitive dust;
  - Maintenance of roadways in a clean manner; and,
  - Prompt removal of earth or other materials from paved streets which have been transported there by trucking, earth-moving equipment, erosion, or other means.
- Except for persons engaged in agricultural operations or persons who can demonstrate to the director that the best practical operation or treatment is being implemented, no person shall cause or permit the discharge of visible fugitive dust beyond the property lot line on which the fugitive dust originates.

In regard to motor vehicles, Chapter 60 HAR §11-60.1-34 includes the following:

- No person shall operate a gasoline-powered motor vehicle which emits visible smoke while upon streets, roads, or highways.
- No person shall operate a diesel-powered motor vehicle which emits visible smoke for a period of more than five consecutive seconds while upon streets, roads, or highways.
- No person shall cause, suffer, or allow any engine to be in operation while the motor vehicle is stationary at a loading zone, parking or servicing area, route terminal, or other off-street areas, except:
  - During adjustment or repair of the engine at a garage or similar place of repair;
  - During operation of ready-mix trucks, cranes, hoists, and certain bulk carriers, or other auxiliary equipment built onto the vehicle or equipment that require power take-off from the engine, provided that there is no visible discharge of smoke and the equipment is being used and operated for the purposes as originally designed and intended. This exception shall not apply to operations of air conditioning equipment or systems;
  - During the loading or unloading of passengers, not to exceed three minutes; and
  - During the buildup of pressure at the startup and cooling down at the closing down of the engine for a period of not more than three minutes.
- No person shall remove, dismantle, fail to maintain, or otherwise cause to be inoperative any equipment or feature constituting an operational element of the air pollution control system or

mechanism of a motor vehicle as required by the provisions of the Act except as permitted or authorized by law.

3.3 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Cumulative GHG emissions contribute to an increased greenhouse effect and global climate change, which influences sea level rise, changes in precipitation, habitat, temperature, wildfires, air pollution levels, and changes in the frequency and intensity of weather-related-events. This Study focuses on carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) because these are the primary GHGs emitted by land use development projects.[10] The individual pollutant's ability to retain infrared radiation represents its "global warming potential" (GWP) and is expressed in terms of CO_2 equivalents (denoted CO_2e); therefore, CO_2 is the benchmark GHG having a GWP value of one. For standardized GHG emissions inventory applications and based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report, CH_4 has a GWP value of 28 and thus has a 28 times greater global warming potency per metric ton than CO_2.[11] N_2O has a global warming potential of 265. GHG emissions are generally expressed in units of annual metric tons of CO_2 equivalents (i.e., $MTCO_2e$/year).

3.4 CLIMATE CHANGE REGULATORY FRAMEWORK

Federal Laws

The United States Supreme Court has ruled that CO_2 and other GHGs are pollutants under the FCAA, which the USEPA may regulate. On December 7, 2009, the USEPA made two distinct findings: 1) that the current and projected concentrations of the six key GHGs (CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations; and 2) that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.[12]

The United States Supreme Court has ruled that the USEPA exceeded its statutory authority under the FCAA when it determined that stationary source emissions of GHGs would trigger permitting obligations under the Prevention of Significant Deterioration (PSD) program and Title V of the FCAA.[13] The Court, however, upheld those portions of USEPA's rulemaking that require a source to apply best available control technology (BACT) to GHG emissions where the source would otherwise trigger PSD permitting on account of its emissions of other pollutants. The Supreme Court's decision was limited to USEPA's regulation of GHG emissions under the PSD and Title V provisions of the FCAA, and it left unanswered other questions regarding USEPA's permitting and BACT authority under the PSD program, and the USEPA's efforts to regulate GHG emissions from stationary sources.

The Federal Greenhouse Gas Reporting Program (40 Code of Federal Regulations Part 98) requires mandatory reporting of GHG emissions from sources that emit 25,000 metric tons or more of carbon dioxide equivalent per year in the United States. Uses that are generally

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[10] California Air Pollution Control Officers Association, *California Emissions Estimator Model Users Guide (Version 2022.1)*, April 2022.

[11] Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis – Technical Summary*, July 2007.

[12] Supreme Court of the United States, *Massachusetts et al. v. Environmental Protection Agency et al*., April 2, 2007.

[13] Supreme Court of the United States, *Utility Air Regulatory Group v. Environmental Protection Agency et al.*, June 23, 2014.

associated with this level of reporting include power plants, petroleum and natural gas refineries and other heavy manufacturing processes.

State Regulations

In 2007, Hawaii became the second State in the nation to set a binding cap on GHG emissions through Act 234: Hawaii's Climate Change Law, which declared a policy to reduce GHG emissions statewide to 1990 levels by the year 2020. Act 234 served as the foundation for the Hawaii Greenhouse Gas Program, which was established by the DOH to combat the threat of climate change and sea level rise. This Program utilizes the Air Pollution Control Permit process of DOH's Clean Air Branch to regulate GHG emissions statewide, in conjunction with other federal and State programs to mitigate GHGs. Parts of Act 234 are codified in Chapter 342B (Air Pollution Control) of the Hawaii Revised Statutes.

Senate Bill (SB) 559, which was signed into law on June 8, 2017, expands strategies and mechanisms to reduce GHG emissions in alignment with the principles and goals adopted in the Paris Agreement, discussed above. SB 559 documents the State's commitment to combat climate change by systematically reducing GHG emissions and improving resiliency to climate change aligned with the principles and goals set by the Paris Agreement. It expands on strategies and mechanisms to reduce GHG emissions through the reduction of energy use, adoption of renewable energy, and control of air pollution among all agencies, departments, industries, and sectors, including transportation. SB 559 states that, "Such strategies and mechanisms shall utilize the best available science, technologies, and policies to reduce GHG emissions and shall be closely aligned with the climate change principles and goals adopted in the Paris Agreement and Hawaii's share of obligations within the expectations apportioned to the United States in the Paris Agreement, regardless of federal action." In addition, "The State shall strive to formulate and communicate long-term low greenhouse gas emission development strategies and shall take actions to conserve and enhance long-term sinks and reservoirs of greenhouse gases, by prioritizing the development of parks, greenways, and restoration of native upland and coastal forests and wetlands."

In 2018, the State Legislature passed Act 15, to establish a permanent Greenhouse Gas Sequestration Task Force within the Office of Planning (now the Office of Planning and Sustainable Development). This task force will work to establish a baseline for GHG and short- and long-term benchmarks for increasing GHG sequestration in the agricultural and natural environment. The Act also establishes a statewide carbon net-negative goal by 2045.

In 2022, the State Legislature passed Act 238, which tasks the Hawaii State Energy Office to "analyze pathways and develop recommendations for achieving the State's economy-wide decarbonization goals." Additionally, the study will evaluate emission reduction pathways from all emitting sectors economy wide. Act 238 establishes a goal for the level of statewide GHG emissions to be at least 50 percent below 2005 levels by 2030 (including aviation emissions).

The DOH established the Hawaii GHG Program to combat the threat of climate change and sea level rise. The program utilizes the Air Pollution Control Permit process of the Clean Air Branch to regulate GHG emissions statewide. The Hawaii GHG program works in conjunction with other federal and State programs to mitigate GHG emissions. This includes the Priority Climate Action Plan (PCAP), which outlines Hawaiʻi's priority measures to reduce GHG emissions and achieve climate change goals in a manner that is clean, equitable, and resilient. The 17 priority measures detailed in the PCAP address GHG reductions from 2025 through 2050. These priority measures complement Hawaiʻi's existing climate policies and initiatives that mitigate emissions and were

chosen based on their GHG reduction potential, high degree of implementation readiness, cost-effectiveness, and the additional community benefits they provide.

The Climate Action Pathways (CAP) builds upon the PCAP and identifies all major sources and sinks of GHGs, establishes short- and long-term reduction goals, and fitting strategies and measures. The CAP examines current GHG emissions and projected emissions without any changes to status quo activities and compare these to projected emissions with economy wide GHG reduction activities fully carried out. The CAP is a guide for investment in policies, practices, and technologies that reduce pollutant emissions, increase affordability, enhance resiliency and safety, protect public health, create high-quality jobs, spur economic growth, and enhance the quality of life for all residents in Hawaiʻi.

The State settled the *Navahine v. Hawaiʻi Department of Transportation (HDOT)* constitutional climate case in 2024. The settlement acknowledges the constitutional rights of Hawaiʻi's youth to a life-sustaining climate and confirms the commitment by HDOT to plan and implement transformative changes of Hawaiʻi's transportation system to achieve the State's goal of net-negative emissions by 2045. The agreement includes numerous provisions for immediate and ongoing action steps by HDOT. These include, for example:

- Establishing a GHG Reduction Plan within one year of the agreement, laying the foundation and roadmap to decarbonize Hawaiʻi's transportation system within the next 20 years.
- Creating a lead unit and responsible positions within HDOT to coordinate the mission of GHG reduction throughout the agency; oversee climate change mitigation and adaptation for the highways program; and ensure implementation of the Complete Streets policy of building and upgrading public highways for all users, ages, and abilities.
- Establishing a volunteer youth council to advise on HDOT mitigation and adaptation commitments in the years to come.
- Improving the state transportation infrastructure budgeting process to prioritize reduction of GHG and vehicles miles traveled (VMT) and transparently analyze and disclose the GHG and VMT impacts of each project and the overall program.
- Making immediate, ambitious investments in clean transportation infrastructure, including completing the pedestrian, bicycle, and transit networks in five years, and dedicating a minimum of $40 million to expanding the public electric vehicle charging network by 2030.

4.0 EXISTING ENVIRONMENTAL SETTING

4.1 CLIMATOLOGY

Maui has a semi-tropical climate with numerous distinct microclimates. The average annual temperature near sea level is around 75 degrees Fahrenheit. Most of the island's rainfall occurs on its northeast-facing shores, while the south and southwest coastal areas remain relatively dry.

Kahului experiences consistently warm temperatures throughout the year, with minimal seasonal fluctuations. Annual temperatures in the region average in the upper 70s to mid-80's. July through September are historically the warmer months of the year, while the cooler months are December through February. During the summer months, average daily temperatures in Kahului are slightly higher than in winter and typically range from the low to the mid 80's.

Average rainfall distribution in this region varies from 10 inches to 20 inches per year in the higher elevations. Rainfall in the Central Maui region is highly seasonal, with most of the precipitation occurring in the winter months from strong storm systems.

The northeast trade winds dominate about 80 to 85 percent of the time, typically averaging 10 to 15 miles per hour in the afternoons. Mornings and nights generally bring calmer or lighter winds. From October to April, southerly winds associated with Kona storms may also occur.

4.2 AIR MONITORING DATA

The project area in general does not experience adverse air quality conditions. Notable point sources of air contaminants in the local area can be attributed to vehicle exhaust as well as periodic events such as Hawaiʻi Island volcanic eruptions and Central Maui range fires. There are two active air monitoring sites in Maui County, and the closest DOH air monitoring site is Kahului station located approximately 2.5 miles to the west of the project site. This station monitors $PM_{2.5}$ concentrations only. **Table 4-1** shows that pollutant levels were significantly below the applicable federal standards from 2020 to 2022. In 2023 and 2024, 24-hour average $PM_{2.5}$ concentrations were measured above the NAAQS on one occasion due to the New Year's fireworks celebration. All other days in 2023 and 2024 were measured to be below the 24-hour average $PM_{2.5}$ NAAQS, and the annual average concentration still remained considerably below the federal standard.

TABLE 4 1: AIR MONITORING DATA SUMMARY

Pollutant	Averaging Period	Federal Standard	Maximum Measured Concentrations by Year				
			2020	2021	2022	2023	2024
$PM_{2.5}$	24-hour	35 µg/m^3	9.2	9.1	13.0	57.2	35.7
	Annual	9.0 µg/m^3	3.9	3.9	7.7	4.0	3.9

SOURCE: Hawaii State DOH, *2021 Hawaii Air Quality Data*, December 2022; Hawaii State DOH, *2022 Hawaii Air Quality Data*, September 2023; Hawaii State DOH, *2023 Hawaii Air Quality Data*, September 2024; USEPA, *Monitor Values Report*, available at: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report.

4.3 AIR QUALITY SENSITIVE RECEPTORS

Sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing, and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Extra care must be taken when dealing with contaminants and pollutants in close proximity to areas

recognized as sensitive receptors.[14] The project area is located adjacent to the Wailuku-Kahului Community Plan Area within the Central Maui region. The surrounding area contains residential, commercial, agricultural, heavy industrial, public/quasi-public, and recreational uses. Additionally, Kahului Airport is located northeast of the project site.

4.4 STATEWIDE GREENHOUSE GAS EMISSIONS

The State recently published the *Hawai'i Greenhouse Gas Emissions Report for 2022* in April 2025.[15] The purpose of the report is to track progress toward achieving the State's 2020, 2030, and 2045 GHG reduction goals, as well as refining estimates of the statewide GHG emissions inventory for 1990, 2005, 2007, 2010, and 2015 through 2021. Based on the analysis presented in the report for estimated emissions through 2020, net GHG emissions in 2020—excluding the aviation sector and accounting for carbon sinks—were lower than net GHG emissions estimated for 1990. Therefore, the report determined that Hawaii continues to meet the 2020 statewide GHG emissions target established by Act 234 of 2007 with the updated quantification methodology.

In 2022, total GHG emissions in Hawaii were approximately 20.32 million metric tons of CO_2 equivalents per year ($MMTCO_2e$/year). Emissions from the energy sector accounted for the largest portion (88.4 percent) of total emissions in Hawaii followed by the agriculture, forestry, and other land use sectors (7.2 percent), the industrial processes and product use sector (4.2 percent), and the waste sector (1.9 percent). Total GHG emissions in Hawaii steadily grew by a total of 17.7 percent between 1990 and 2007, then subsequently decreased by approximately 24.6 percent between 2007 and 2022. Compared to 1990, total emissions in Hawaii in 2022 were roughly 11.3 percent lower, while net emissions were lower by 13.0 percent. Sources in Maui County accounted for approximately 15.3 percent of statewide emissions in 2022.

As the largest source of emissions in Hawaii, the energy sector is a major driver of the overall emissions trends. For the statewide GHG inventory, the energy-related sources comprise transportation, stationary combustion, incineration of waste, the oil and natural gas system, and a small amount of non-combustion uses. Transportation emissions accounted for the largest share of energy sector emissions in all inventory years, being approximately 56.3 percent in 2022. The trend in transportation emissions increased significantly from 1990 to 2007, decreased from 2007 to 2015, and subsequently increased between 2016 and 2019. Then, transportation emissions dropped significantly in 2020 due to the economic downturn associated with the COVID-19 pandemic before rebounding in 2021. Transportation emissions are largely driven by domestic aviation and ground transportation emissions, which together account for roughly 82.8 percent of transportation emissions.

Regarding forecasts for the statewide GHG inventory into the future, the 2022 report evaluated six potential scenarios that were differentiated by high versus low future oil price pathways (Alternative Scenarios 1A and 1B), continuation of the existing trend versus aggressive renewable energy deployment (Alternative Scenarios 2A and 2B), and high versus low electric vehicle (EV) market penetration (Alternative Scenarios 3A and 3B). **Table 4-2** summarizes the emissions projections for the six Alternative Scenarios and their respective reductions relative to the 1990 emissions level expressed in percentage in the forecast years 2025, 2035, and 2045. The data presented include aviation emissions and carbon sinks for consistency with the GHG emissions

[14] USEPA, *Environmental Issues of Concern for Urban Communities: Resources*, 2023. https://www.epa.gov/newenglandhc/environmental-issues-concern-urban-communities-resources. Accessed April 2, 2025.

[15] Hawaii State DOH, *Hawai'i Greenhouse Gas Emissions Report for 2022*, April 2025.

reduction targets established by Act 15 (net-zero carbon emissions by 2045) and Act 238 (50 percent reduction relative to 2005 levels by 2030).

TABLE 4 2: STATEWIDE GHG EMISSIONS INVENTORY PROJECTIONS

Alternative Scenario	Parameter	2025	2030	2035	2040	2045
Baseline	Emissions ($MMTCO_2e$)	17.45	15.51	13.34	12.23	10.35
	Percent Redux from 2005	*23.4%*	*31.9%*	*41.4%*	*46.3%*	*54.6%*
1A (Higher Oil Prices)	Emissions ($MMTCO_2e$)	16.50	13.95	11.63	10.78	8.99
	Percent Redux from 2005	*27.6%*	*38.8%*	*49.0%*	*52.7%*	*60.5%*
1B (Lower Oil Prices)	Emissions ($MMTCO_2e$)	18.30	16.39	14.30	13.22	11.26
	Percent Redux from 2005	*19.7%*	*28.1%*	*37.2%*	*42.0%*	*50.6%*
2A (More Renewable)	Emissions ($MMTCO_2e$)	17.45	15.08	12.87	11.77	9.63
	Percent Redux from 2005	*23.4%*	*33.8%*	*43.5%*	*48.3%*	*57.7%*
2B (Less Renewable)	Emissions ($MMTCO_2e$)	17.45	16.05	13.97	12.89	10.99
	Percent Redux from 2005	*23.4%*	*29.6%*	*38.7%*	*43.4%*	*51.7%*
3A (Higher EV)	Emissions ($MMTCO_2e$)	17.45	15.42	13.00	11.75	9.84
	Percent Redux from 2005	*23.4%*	*32.3%*	*42.9%*	*48.4%*	*56.8%*
3B (Lower EV)	Emissions ($MMTCO_2e$)	17.45	15.51	13.40	12.53	11.09
	Percent Redux from 2005	*23.4%*	*31.9%*	*41.2%*	*45.0%*	*51.3%*
Minimum Forecast	**Emissions ($MMTCO_2e$)**	**16.50**	**13.95**	**11.63**	**10.78**	**8.99**
	Percent Redux from 2005	***27.6%***	***38.8%***	***49.0%***	***52.7%***	***60.5%***
Maximum Forecast	**Emissions ($MMTCO_2e$)**	**18.30**	**16.39**	**14.30**	**13.22**	**11.26**
	Percent Redux from 2005	***19.7%***	***28.1%***	***37.2%***	***42.0%***	***50.6%***

SOURCE: Hawaii State DOH, *Hawai'i Greenhouse Gas Emissions Report for 2022*, April 2025.

As shown by the array of projections, the maximum emissions reduction in the horizon year of 2030 relative to 2005 would be 38.8 percent under Alternative Scenario 1A. There is no scenario identified that would achieve the 2030 or 2045 reduction targets established by the State Legislature. Thus, the State is not yet on trajectory to meet its ambitious statewide GHG emissions reduction goals. The State will continue to explore opportunities to reduce GHG emissions and further refine its inventory estimates in ensuing GHG emissions reports.

4.5 ELECTRIC UTILITY RENEWABLE ENERGY PORTFOLIO

The proposed project would be supplied with electricity by Hawaiian Electric. As of 2024, the electricity delivered to customers in Maui County was approximately 41.1 percent derived from renewable energy resources, and renewables accounted for 36 percent of total Hawaiian Electric electricity for all service areas.[16] The carbon intensity of electricity delivered to customers was approximately 1,195 pounds of CO_2e per megawatt-hour (lbs.-CO_2e/MWh) in 2024, and the forecast target for 2035 when the proposed project is fully built-out is approximately 550 lbs.-CO_2e/MWh. Hawaiian Electric is exploring pathways towards full decarbonization by 2045, but additional technological advancements will be needed to meet the 2045 net-zero GHG target.[17]

[16] Hawaiian Electric, *2024-2025 Sustainability Report & Maps*, March 2025.
[17] Hawaiian Electric, *Hawai'i Pathways to Net Zero: An Initial Assessment of Decarbonization Scenarios, April 2023*.

5.0 SIGNIFICANCE CRITERIA

Chapter 60 §11-60.1-1 of the HAR includes rates of pollutant emissions that are considered significant for stationary sources (e.g., refineries and agricultural burning). These rates are provided for criteria pollutants, ozone precursors, and GHG emissions. The rates, shown in **Table 5-1**, are not directly relevant to land use development projects, although they provide emissions context in the absence of relevant adopted significance criteria.

TABLE 5 1: SIGNIFICANT EMISSION RATES PER THE HAWAII ADMINISTRATIVE RULES

	Annual Emissions (Tons per Year)						
Parameter	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2e**
Emission Rate	40	40	100	40	15	10	40,000

SOURCE: HAR Chapter 60§11-60.1-1.

6.0 ENVIRONMENTAL EFFECTS

6.1 CONSTRUCTION EMISSIONS OF CRITERIA AIR POLLUTANTS AND OZONE PRECURSORS

Common sources of construction-related air pollution include equipment engine exhaust, as well as mobile source vehicle trips, all of which are temporary in nature and do not represent permanent sources of air pollutants. Hawaii does not have guidance or limitations related to exhaust emissions generated by heavy-duty equipment. Building and road construction are two examples of construction activities with high emissions potential. Emissions during the construction of a building or road can be associated with land clearing, ground excavation, cut and fill operations (i.e., earth moving), and construction of a particular facility itself. Emissions often vary substantially from day to day, depending on the level of activity, the specific operations, and the prevailing meteorological conditions.

Neither Hawaii nor the USEPA have created a model for efficiently estimating construction emissions. Equipment inventories for each phase of construction were populated in the California Emissions Estimator Model (CalEEMod, Version 2022.1.1.37), and the model was used to produce estimated emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ during each year of construction activities. This model provides a reasonable estimation of construction emissions in Hawaii for planning only purposes as the equipment fleet in the model includes varying levels of engine emission controls.

Specific construction assumptions, such as a detailed schedule and equipment list, were not available when this analysis was prepared. Construction of all proposed project components were assumed to begin in January 2028 and end in June 2042. Anticipated construction activities include site preparation, grading, building construction, paving, and architectural coating. For a conservative analysis, all construction activities were assumed to occur daily throughout the duration of the construction period. Detailed modeling output files containing schedule and equipment information can be found in the **Appendix**.

Table 6-1 discloses the estimated annual criteria pollutant and ozone precursor emissions that would be generated during each year of proposed project construction. The emissions analysis was conservative in nature as it assumed that all equipment would operate continuously throughout an eight-hour workday for the entirety of the forecasted construction schedule. Construction emissions generated by the proposed project would be temporary and would cease upon completion of activities. As demonstrated by the analysis presented in **Table 6-1**, Annual construction emissions would not exceed the rates included in HAR Chapter 60 §11-60.1-1. Therefore, construction of the proposed project would not result in adverse air quality effects related to emissions of criteria pollutants and ozone precursors.

TABLE 6-1: CONSTRUCTION EMISSIONS OF CRITERIA POLLUTANTS AND OZONE PRECURSORS

Year	Maximum Annual Emissions (Tons per Year)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2028	1.1	8.5	15.7	< 0.1	2.5	0.8
2029	3.9	8.9	17.3	< 0.1	2.8	0.8
2030	3.9	8.6	16.9	< 0.1	2.8	0.8
2031	3.8	8.3	16.6	< 0.1	2.8	0.8
2032	3.8	8.0	16.2	< 0.1	2.8	0.8
2033	3.8	7.8	15.9	< 0.1	2.8	0.8
2034	3.7	7.6	15.6	< 0.1	2.8	0.8
2035	3.7	7.4	15.3	< 0.1	2.8	0.7
2036	3.7	7.2	15.1	< 0.1	2.7	0.7
2037	3.7	7.0	14.9	< 0.1	2.7	0.7
2038	3.6	6.8	14.7	< 0.1	2.7	0.7
2039	3.6	6.7	14.5	< 0.1	2.7	0.7
2040	3.6	6.6	14.5	< 0.1	2.7	0.7
2041	3.4	5.4	11.9	< 0.1	2.4	0.6
2042	1.6	2.1	4.7	< 0.1	1.0	0.3
Maximum Annual	**3.9**	**8.9**	**17.3**	**< 0.1**	**2.8**	**0.8**
HAR Significant Emission Rates	***40***	***40***	***100***	***40***	***15***	***10***

SOURCE: TAHA, 2026.

Earthwork activities typically generate fugitive dust emissions. The proposed project would implement best management practices—such as periodic application of water onto exposed or disturbed ground areas and material stockpiles, dust and silt fencing for erosion control, maintaining equipment in accordance with manufacturer specifications, sweeping of dust track-out on surrounding roadways, and prompt revegetation of graded areas—to control fugitive dust emissions during active construction and during periods of downtime.

The DOH Clean Air Branch published a Fugitive Dust Fact Sheet, which was last revised in April 2019. The following are examples of reasonable precautions to reduce fugitive dust that could be implemented by the construction contractor. The examples are noted as not being requirements and are solely intended to aid in complying with the fugitive dust rules. The examples are common precautions used for various activities that may generate visible fugitive dust and are not meant to be exclusive nor comprehensive.

- General Measures
  - Design, develop, and implement a dust control plan.
  - Use water or suitable chemical compounds in the demolition of existing structures, construction operations, and grading or clearing of land.
  - Apply water, dust suppressants, or suitable compounds on roads and material stockpiles.

  - Pave ingress and egress points to the site.
  - Establish and monitor speed limits for on-site vehicles.
  - Cover all moving, open-bodied trucks transporting dusty materials.
  - Install and use enclosures, screens, hoods, vacuums, and filters to control the handling, sanding, or finishing of dusty materials.
  - Use trash chutes to direct waste downwards to the ground from upper levels.
  - Clean up material spills as soon as possible.
  - Promptly remove soil or other "carry out" materials from roads adjacent to the site.
  - Install dust screens or wind barriers around construction site.
  - Where practical, provide a buffer zone between fugitive dust activities and residential areas.
- Earth-moving Activities
  - Pre-apply and re-apply water as necessary to maintain soils in a damp condition.
  - Limit the amount of exposed areas through planning and timing of project phases.
  - Cover temporarily exposed areas with mulch.
- Stockpiles
  - Stabilize stockpile materials.
  - Keep stockpiles wet or damp as needed.
  - Keep drop or pile height as low as possible.
  - Install wind barriers.
  - Add or remove material from downwind portion of stockpile.
  - Maintain storage piles to avoid steep sides or faces.
- Trucking
  - Provide water while loading and unloading to prevent fugitive dust.
  - Maintain at least six inches of freeboard on haul vehicles.
  - Level the height of load.
  - Limit vehicular speed while traveling onsite.
  - Cover loads during transport.
  - Install a gravel pad at exit.
  - Reduce carry out with a tire wash or spray system.

The Clean Air Branch does not require specific precautions. Which precaution(s) to implement is/are the responsibility of the owner, project manager or operator of the site. Reasonable precautions to control fugitive dust are determined on a case-by-case basis. The site topography and surroundings, soil conditions, meteorological conditions, site activities, site equipment, and types of material processed must be considered. The use of any or all of the example measures does not directly correlate to compliance of the fugitive dust requirements. The owner, project manager, or operator should assess the project activities and conditions daily and make

adjustments so that reasonable precautions are taken to prevent fugitive dust from becoming airborne and crossing the property lines. Generally, dry and windy conditions will require more control measures than rainy and calm periods.

6.2 OPERATIONAL EMISSIONS OF CRITERIA AIR POLLUTANTS AND OZONE PRECURSORS

CalEEMod was also used to estimate operational emissions of criteria air pollutants and ozone precursors. Direct sources of operational emissions would include mobile source vehicle trips and area source emissions, such as consumer product use (i.e., household cleaners) and landscaping activities. Tailpipe emissions from on-road vehicle trips would be distributed along the surrounding roadway network and would not be heavily concentrated in one location. Regarding regional mobile source emissions, the transportation analysis concluded that the proposed project at full build-out would generate 19,277 total new daily trips.[18]

Indirect source emissions during operations would include energy consumption such as electricity for ventilation and air conditioning, water heating, stoves, lighting, and appliances. To more accurately represent emissions from water in the project area, the water-energy intensity for Maui from the *2016 Hawaii Energy Nexus Report* was used. Water-energy intensity is the amount of energy required to collect, treat, and distribute 1,000 gallons of water (kWh/kgal). The average water-energy intensity in Maui in 2015 was 4.3 kWh/kgal.[19] Detailed operational emissions data can be found in the **Appendix**. **Table 6-2** presents the results of the operational emissions modeling in the horizon year of 2042. Actual emissions associated with utility demand would likely be lower due to improvements in water conservation and energy efficiency. Nonetheless, annual operational emissions were found to be lower than the significant emission rates identified in HAR Chapter 60 §11-60.1-1 when utilizing conservative assumptions.

TABLE 6 2: PROPOSED PROJECT OPERATIONAL EMISSIONS (2042)

Emissions Source/Parameter	Maximum Annual Emissions (Tons per Year)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile Vehicle Trips	7.2	5.0	48.8	0.1	14.3	3.7
Area Sources	12.2	0.1	11.6	< 0.1	< 0.1	< 0.1
Energy Sources	0.1	0.9	0.8	< 0.1	0.1	0.1
Total	**19.4**	**6.1**	**61.2**	**0.1**	**14.4**	**3.8**
HAR Significant Emission Rates	***40***	***40***	***100***	***40***	***15***	***10***

SOURCE: TAHA, 2026.

Regarding localized mobile source emissions, CO concentrations are often used as one indicator of pollutant exposure to sensitive receptors. USEPA has published guidance on prevention of CO "hot spots" at congested traffic intersections resulting from idling and slow-moving vehicles. The guidance focuses on the avoidance of localized spikes in CO concentrations causing violations of the ambient air quality standards that may occur at heavily trafficked and highly congested intersections. In response to the guidance promulgated by the USEPA, numerous regulatory agencies throughout the country undertook research to determine the types of intersections that may pose air quality concerns with regards to CO hot spots. Since the island of Maui has always been in attainment of the ambient air quality standards, local regulatory agencies did not have a

[18] Fehr & Peers, *Ho'onani Village: Transportation Impact Analysis Report*, January 2026.

[19] Department of Land and Natural Resources Commission on Water Resource Management, *2016 Hawaii Energy Nexus Report*, May 2017.

need to conduct research to satisfy the air quality plan requirements. However, mobile source emissions of CO are of particular concern in California, where the South Coast Air Quality Management (SCAQMD) engaged in extensive research to demonstrate how the CO NAAQS could be attained for the region.

Research published in 2003 by the SCAQMD to support SIP documentation involved air dispersion modeling of mobile CO emissions at some of the busiest intersections in Southern California, where regional mobile source emissions are substantially higher than the project area on a per-square-mile basis. Results of the CO dispersion modeling exercise determined that an intersection experiencing a peak hour volume of approximately 10,000 vehicles per hour would generate a maximum 1-hour CO concentration approximately 77 percent below the ambient air quality standard.[20] The traffic analysis prepared for the proposed project demonstrates that local intersection volumes are nowhere near 10,000 vehicles per hour.[21] There is no potential for the proposed project to result in a CO hotspot and, therefore, no potential for the proposed project to result in substantial concentrations of related exhaust pollutants.

6.3 CONSTRUCTION GREENHOUSE GAS EMISSIONS

The State, through Act 234 and SB 559, has acknowledged that GHG emissions are a statewide impact. The proposed project would generate temporary GHG emissions through construction activities and permanent GHG emissions through new vehicle trips and energy use.

GHG emissions related to construction activities were estimated in a similar manner as the criteria pollutant emissions analysis presented above. The primary source of construction related GHG emissions would be exhaust from heavy-duty equipment. **Table 6-3** shows construction related GHG emissions. As previously discussed, total statewide GHG emissions are projected to be 17.45 $MMTCO_2e$/year in 2025. Construction-related GHG emissions associated with the proposed project would generate an annual maximum of approximately 3,900 $MTCO_2e$, which represents 0.02 percent of the statewide annual emissions inventory. Additionally, annual construction emissions would not exceed the 40,000 $MTCO_2e$ rate included in HAR Chapter 60 §11-60.1-1. Therefore, construction of the proposed project would not result in adverse environmental effects involving the annual magnitude of GHG emissions.

[20] South Coast Air Quality Management District, *Final 2003 AQMP Appendix V: Modeling and Attainment Demonstrations,* August 2003.

[21] Fehr & Peers, *Ho'onani Village: Transportation Impact Analysis Report*, January 2026.

TABLE 6-3: CONSTRUCTION RELATED GHG EMISSIONS

Year	Annual Emissions (Metric Tons per Year)			
	CO_2	CH_4	NO_2	$MTCO_2e$
2028	3,449	0.1	0.2	3,503
2029	3,841	0.1	0.2	3,900
2030	3,798	0.1	0.2	3,856
2031	3,756	0.1	0.2	3,813
2032	3,727	0.1	0.1	3,770
2033	3,681	0.1	0.1	3,722
2034	3,647	0.1	0.1	3,688
2035	3,617	0.1	0.1	3,656
2036	3,599	0.1	0.1	3,638
2037	3,565	0.1	0.1	3,603
2038	3,544	0.1	0.1	3,581
2039	3,525	0.1	0.1	3,562
2040	3,518	0.1	0.1	3,554
2041	3,020	0.1	0.1	3,050
2042	1,245	< 0.1	< 0.1	1,257
Maximum Annual	**3,841**	**0.1**	**0.2**	**3,900**

SOURCE: TAHA, 2026.

6.4 OPERATIONAL GREENHOUSE GAS EMISSIONS

GHG emissions related to operational activities were estimated in a similar manner as the criteria pollutant emissions analysis presented above. The proposed project would generate permanent GHG emissions through energy consumption, landscaping equipment, residential vehicular travel, water use, and waste generation. Hawaii is committed to renewable energy production, which does not generate GHG emissions. In 2024, approximately 41.1 percent of electricity in Maui was generated from renewable sources.[22] Hawaii has enacted a law mandating that all of the State's electricity comes from renewable sources no later than 2045, making delivered electricity carbon-neutral. **Table 6-4** shows the estimated annual operational GHG emissions. The proposed project would generate approximately 19,328 $MTCO_2e$ at full build-out in 2042 and approximately 14,765 $MTCO_2e$ in the horizon year of 2045. Annual operational emissions would not exceed the 40,000 $MTCO_2e$ rate codified in HAR Chapter 60 §11-60.1-1. Project-related indirect emissions would decline as the State moves toward a fully renewable supply of energy. In addition, the proposed project would not interfere with the expansion of the EV market. Thus, the proposed project would not contribute to a significant increase in GHG emissions.

[22] Hawaiian Electric, *2024-2025 Sustainability Report & Maps*, March 2025.

TABLE 6-4: ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS

Scenario and Emission Source	Carbon Dioxide Equivalent Emissions (Metric Tons per Year)	
	2042	**2045**
Mobile Source Emissions (Direct)	12,816	12,816
Area Source Emissions (Direct)	32	32
Energy Source Emissions (Indirect)	4,562	-
Water Distribution Emissions (Indirect)	1,298	1,298
Waste Disposal Emissions (Indirect)	619	619
TOTAL	**19,328**	**14,765**
HAR Significant Emission Rates	***40,000***	***40,000***

SOURCE: TAHA, 2026.

7.0 CUMULATIVE EFFECTS

Section 11-200-2 of the HAR defines a cumulative impact as "the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

By its very nature, air pollution is largely a cumulative impact. Ambient air quality standards are violated or approach nonattainment levels due to past development that has formed the urban fabric. Attainment of these standards can be jeopardized by increasing emissions-generating activities in the region. The proposed site is located in an Attainment/Unclassified area for all NAAQS. The regional air quality in Hawaii is considered to be good. There is no existing cumulative air quality impact, and there is no potential for the project to significantly contribute to a cumulative air quality impact.

The State, through Act 234 and SB 559, has acknowledged that GHG emissions are a statewide impact. Emissions generated by the proposed project in combination with past, present, and reasonably probable future related projects could contribute to this impact. Although climate change is cumulative in nature, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. The proposed project will explore ways to incorporate state-of-the-art energy conservation and green practices in the building development. The proposed project will not interfere with the development of clean energy supplies. Therefore, there is no potential for the project to significantly contribute to a cumulative GHG impact.

APPENDIX

Hoonani Village Project 20260129 Detailed Report

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3.237. Architectural Coating (2031) - Unmitigated

3.238. Architectural Coating (2031) - Mitigated

3.239. Architectural Coating (2032) - Unmitigated

3.240. Architectural Coating (2032) - Mitigated

3.241. Architectural Coating (2033) - Unmitigated

3.242. Architectural Coating (2033) - Mitigated

3.243. Architectural Coating (2034) - Unmitigated

3.244. Architectural Coating (2034) - Mitigated

3.245. Architectural Coating (2035) - Unmitigated

3.246. Architectural Coating (2035) - Mitigated

3.247. Architectural Coating (2036) - Unmitigated

3.248. Architectural Coating (2036) - Mitigated

3.249. Architectural Coating (2037) - Unmitigated

3.250. Architectural Coating (2037) - Mitigated

3.251. Architectural Coating (2038) - Unmitigated

3.252. Architectural Coating (2038) - Mitigated

3.253. Architectural Coating (2039) - Unmitigated

3.254. Architectural Coating (2039) - Mitigated

3.255. Architectural Coating (2040) - Unmitigated

3.256. Architectural Coating (2040) - Mitigated

3.257. Architectural Coating (2041) - Unmitigated

3.258. Architectural Coating (2041) - Mitigated

3.259. Architectural Coating (2042) - Unmitigated

3.260. Architectural Coating (2042) - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.2. Project Characteristics

8.2.1. Project Details

8.3. Land Use

8.4. Construction

8.4.1. Construction Phases

8.4.2. Off-Road Equipment

8.4.6. Trips and VMT

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

8.5.4. Water and Waste Water

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hoonani Village Project 20260129
Construction Start Date	6/1/2028
Operational Year	2042
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	Statewide
Windspeed (m/s)	15.0000
Precipitation (days)	112.800
Location	34.05155855246835, -118.25250166290333
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4042
EDFZ	16
Electric Utility	Statewide Average
Gas Utility	Southern California Gas
App Version	2022.1.1.37

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Low Rise	1,608.00	Dwelling Unit	60.0000	1,704,480	0.00000	—	4,760.00	Multi-familiy Residential

Road Construction	2.00000	Mile	9.00000	0.00000	0.00000	—	—	Roadways, approx 2 mi x 36 ft
Parking Lot	5,413.00	Space	0.00000	0.00000	0.00000	—	—	—
Strip Mall	33.0000	1000sqft	16.2000	33,000.0	0.00000	—	—	Commercial Retail and Restaurant
Fast Food Restaurant w/o Drive Thru	7.00000	1000sqft	0.00000	7,000.00	0.00000	—	—	Food Hall
City Park	0.11478	Acre	0.11478	0.00000	0.00000	0.00000	—	Entertainment Space
Industrial Park	255.000	1000sqft	23.4000	255,000	0.00000	—	—	Light Industrial Park
General Office Building	100.0000	1000sqft	9.70000	100,000.0	0.00000	—	—	Office Building
Hotel	240.000	Room	8.00000	348,480	0.00000	—	—	Hospitality
Regional Shopping Center	30.0000	1000sqft	7.20000	30,000.0	0.00000	—	—	Future Phase Commercial/Civic
City Park	14.4000	Acre	14.4000	0.00000	0.00000	0.00000	—	Future Phase Recreation/Entertainme
Library	14.2000	1000sqft	3.40000	14,200.0	0.00000	—	—	Future Phase Civic
Other Non-Asphalt Surfaces	211.200	1000sqft	0.00000	0.00000	0.00000	—	—	20’ wide bike and pedestrian pathway, approx. 2 mi
General Heavy Industry	65.3000	1000sqft	1.50000	65,300.0	0.00000	—	—	Wastewater treatment plant

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Energy	E-15	Require All-Electric Development

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	31.8727	30.4012	67.5872	140.397	0.19192	2.23592	22.7328	24.8385	2.06637	4.87866	6.82544	—	33,135.6	33,135.6	0.91958	1.53029	46.3244	33,659.3
Mit.	31.8727	30.4012	67.5872	140.397	0.19192	2.23592	22.7328	24.8385	2.06637	4.87866	6.82544	—	33,135.6	33,135.6	0.91958	1.53029	46.3244	33,659.3
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	31.7431	29.8890	68.4316	130.790	0.19192	2.23592	22.7328	24.8385	2.06637	4.87866	6.82544	—	32,305.5	32,305.5	0.95882	1.53170	1.20081	32,787.1
Mit.	31.7431	29.8890	68.4316	130.790	0.19192	2.23592	22.7328	24.8385	2.06637	4.87866	6.82544	—	32,305.5	32,305.5	0.95882	1.53170	1.20081	32,787.1
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	22.6784	21.6133	48.8014	94.6774	0.13746	1.56024	14.1224	15.5879	1.44171	3.17633	4.55820	—	23,199.9	23,199.9	0.67085	1.09306	13.8042	23,556.2
Mit.	22.6784	21.6133	48.8014	94.6774	0.13746	1.56024	14.1224	15.5879	1.44171	3.17633	4.55820	—	23,199.9	23,199.9	0.67085	1.09306	13.8042	23,556.2
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.13881	3.94443	8.90625	17.2786	0.02509	0.28474	2.57734	2.84480	0.26311	0.57968	0.83187	—	3,841.01	3,841.01	0.11107	0.18097	2.28545	3,900.00
Mit.	4.13881	3.94443	8.90625	17.2786	0.02509	0.28474	2.57734	2.84480	0.26311	0.57968	0.83187	—	3,841.01	3,841.01	0.11107	0.18097	2.28545	3,900.00
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshol	—	40.0000	40.0000	100.000	40.0000	—	—	15.0000	—	—	10.0000	—	—	—	—	—	—	40,000.0
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	No
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	No

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	11.1867	9.39656	67.2861	135.406	0.18473	2.23592	20.9106	23.1465	2.06637	4.54990	6.61627	—	31,771.2	31,771.2	0.90276	1.49270	46.3244	32,284.9
2029	31.8727	30.4012	67.5872	140.397	0.19189	2.10575	22.7328	24.8385	1.94678	4.87866	6.82544	—	33,135.6	33,135.6	0.91958	1.53029	44.7252	33,659.3
2030	31.4898	29.6961	65.2340	137.408	0.19189	1.98992	22.7328	24.7227	1.79260	4.87866	6.67126	—	32,758.9	32,758.9	0.89625	1.50600	39.9348	33,270.1
2031	31.1761	29.4345	63.2955	134.106	0.19190	1.90603	22.7328	24.6388	1.71542	4.87866	6.59408	—	32,393.8	32,393.8	0.89484	1.11730	35.4721	32,784.6
2032	30.7924	29.1111	60.7655	130.697	0.19190	1.75587	22.7328	24.4886	1.59962	4.87866	6.47828	—	32,051.6	32,051.6	0.87522	1.09302	31.2518	32,430.4
2033	30.1616	28.8703	59.1711	127.993	0.19190	1.61065	22.7328	24.3434	1.48747	4.87866	6.36613	—	31,737.9	31,737.9	0.87381	1.06969	27.3790	32,105.9
2034	29.8993	28.6331	57.6196	125.673	0.19191	1.52207	22.7328	24.2548	1.40598	4.87866	6.28464	—	31,446.5	31,446.5	0.87143	1.04541	23.7981	31,803.6
2035	29.6876	28.4491	56.1885	123.404	0.19191	1.39822	22.7328	24.1310	1.29204	4.87866	6.17070	—	31,182.4	31,182.4	0.82707	1.02208	20.5560	31,528.2
2036	29.4224	28.2580	54.6398	121.150	0.19191	1.29521	22.7328	24.0280	1.19727	4.87866	6.07593	—	30,945.1	30,945.1	0.80279	1.02067	17.6440	31,287.0
2037	29.2371	28.0913	53.6271	119.699	0.19192	1.21943	22.7328	23.9522	1.12755	4.87866	6.00621	—	30,735.9	30,735.9	0.80137	0.99638	15.1038	31,067.9
2038	28.9836	27.8791	52.1268	117.739	0.19192	1.13805	22.7328	23.8708	1.05268	4.87866	5.93134	—	30,549.7	30,549.7	0.80137	0.97306	12.8766	30,872.6
2039	28.8193	27.7309	50.7458	116.545	0.19192	1.09198	22.7328	23.8248	1.01030	4.87866	5.88896	—	30,387.7	30,387.7	0.79758	0.97306	10.8901	30,708.5
2040	28.6825	27.2204	50.0657	115.553	0.19192	1.06399	22.7328	23.7968	0.98454	4.87866	5.86320	—	30,245.0	30,245.0	0.77796	0.94877	9.24820	30,556.4
2041	28.5427	27.0943	49.3814	114.496	0.19192	1.00990	22.7328	23.7427	0.93478	4.87866	5.81344	—	30,117.4	30,117.4	0.77796	0.94877	7.79862	30,427.4
2042	26.1733	25.1606	32.9089	77.4225	0.13037	0.62549	17.0689	17.6944	0.57911	3.97928	4.55839	—	22,077.9	22,077.9	0.53340	0.65027	5.28794	22,290.3
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	10.7355	9.25785	68.1265	126.104	0.18473	2.23592	20.9106	23.1465	2.06637	4.54990	6.61627	—	31,001.6	31,001.6	0.92061	1.49407	1.20081	31,471.0

2029	31.7431	29.8890	68.4316	130.790	0.19189	2.10575	22.7328	24.8385	1.94678	4.87866	6.82544	—	32,305.5	32,305.5	0.95882	1.53170	1.16101	32,787.1
2030	31.3775	29.5666	66.0752	128.404	0.19189	1.98992	22.7328	24.7227	1.79260	4.87866	6.67126	—	31,943.6	31,943.6	0.91446	1.50600	1.03797	32,416.3
2031	31.0638	29.3050	64.1366	125.687	0.19190	1.90603	22.7328	24.6388	1.71542	4.87866	6.59408	—	31,592.1	31,592.1	0.91446	1.48267	0.92081	32,057.7
2032	30.6997	29.0012	61.5918	122.882	0.19190	1.75587	22.7328	24.4886	1.59962	4.87866	6.47828	—	31,262.1	31,262.1	0.89343	1.45839	0.81021	31,719.8
2033	30.0910	28.7824	59.9707	120.447	0.19190	1.61065	22.7328	24.3434	1.48747	4.87866	6.36613	—	30,958.8	30,958.8	0.89343	1.06969	0.70967	31,300.6
2034	29.8310	28.5442	58.3997	118.391	0.19191	1.52207	22.7328	24.2548	1.40598	4.87866	6.28464	—	30,677.1	30,677.1	0.88964	1.04541	0.61673	31,011.5
2035	29.6179	28.3602	56.9943	116.404	0.19191	1.39822	22.7328	24.1310	1.29204	4.87866	6.17070	—	30,421.6	30,421.6	0.84669	1.02208	0.53240	30,747.9
2036	29.3493	28.1888	55.4470	114.452	0.19191	1.29521	22.7328	24.0280	1.19727	4.87866	6.07593	—	30,191.9	30,191.9	0.82241	1.02208	0.45770	30,517.5
2037	29.1640	28.0206	54.0261	113.290	0.19192	1.21943	22.7328	23.9522	1.12755	4.87866	6.00621	—	29,989.1	29,989.1	0.82099	0.99779	0.39144	30,307.4
2038	28.9694	27.8477	52.5529	111.653	0.19192	1.13805	22.7328	23.8708	1.05268	4.87866	5.93134	—	29,808.7	29,808.7	0.82100	0.97447	0.33326	30,119.9
2039	28.7841	27.6775	51.4886	110.399	0.19192	1.09198	22.7328	23.8248	1.01030	4.87866	5.88896	—	29,651.3	29,651.3	0.79758	0.97447	0.28297	29,961.9
2040	28.6669	27.2062	50.8548	109.728	0.19192	1.06399	22.7328	23.7968	0.98454	4.87866	5.86320	—	29,513.0	29,513.0	0.79758	0.95018	0.23938	29,816.3
2041	28.5022	27.0567	49.9066	108.875	0.19192	1.00990	22.7328	23.7427	0.93478	4.87866	5.81344	—	29,389.3	29,389.3	0.79758	0.95018	0.20266	29,692.6
2042	26.1467	25.1173	33.1585	72.7024	0.13037	0.62549	17.0689	17.6944	0.57911	3.97928	4.55839	—	21,458.1	21,458.1	0.55016	0.65102	0.13698	21,666.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	7.25425	6.23584	46.7041	86.2437	0.12640	1.56024	12.1393	13.6996	1.44171	2.75864	4.20036	—	20,833.3	20,833.3	0.62585	0.99094	12.8987	21,157.1
2029	22.6784	21.6133	48.8014	94.6774	0.13706	1.50411	14.0838	15.5879	1.39055	3.16765	4.55820	—	23,199.9	23,199.9	0.67085	1.09306	13.8042	23,556.2
2030	22.4049	21.1097	47.1345	92.7452	0.13707	1.42137	14.0838	15.5052	1.28043	3.16765	4.44807	—	22,939.4	22,939.4	0.65318	1.07571	12.3173	23,288.6
2031	22.1809	20.9228	45.7369	90.8468	0.13707	1.36145	14.0838	15.4453	1.22530	3.16765	4.39295	—	22,686.3	22,686.3	0.63917	1.05905	10.9464	23,028.8
2032	21.9949	20.7766	44.0167	88.8723	0.13745	1.25763	14.1224	15.3800	1.14572	3.17633	4.32204	—	22,510.3	22,510.3	0.64092	0.78287	9.65615	22,769.2
2033	21.4702	20.5495	42.4966	86.9019	0.13707	1.15046	14.0838	15.2343	1.06248	3.16765	4.23013	—	22,230.6	22,230.6	0.63816	0.76407	8.44438	22,482.7
2034	21.3126	20.4065	41.6504	85.4588	0.13708	1.08719	14.0838	15.1710	1.00427	3.16765	4.17192	—	22,028.1	22,028.1	0.62245	0.74672	7.32554	22,273.5
2035	21.1587	20.2750	40.6142	84.0694	0.13708	0.99873	14.0838	15.0825	0.92289	3.16765	4.09053	—	21,844.3	21,844.3	0.60478	0.73006	6.34959	22,083.3
2036	21.0277	20.1937	39.3545	82.9183	0.13746	0.92769	14.1224	15.0501	0.85754	3.17633	4.03386	—	21,738.4	21,738.4	0.58904	0.73206	5.45968	21,976.7
2037	20.8379	20.0194	38.5253	81.6152	0.13708	0.87102	14.0838	14.9548	0.80540	3.16765	3.97304	—	21,533.4	21,533.4	0.58642	0.71271	4.65432	21,765.1
2038	20.6848	19.8959	37.4687	80.4579	0.13708	0.81289	14.0838	14.8967	0.75191	3.16765	3.91956	—	21,403.7	21,403.7	0.57241	0.69504	3.96711	21,629.1
2039	20.5525	19.7760	36.7101	79.5924	0.13709	0.77999	14.0838	14.8638	0.72164	3.16765	3.88929	—	21,290.5	21,290.5	0.56970	0.69504	3.36459	21,515.3
2040	20.5091	19.4786	36.3394	79.3281	0.13746	0.76207	14.1224	14.8845	0.70517	3.17633	3.88150	—	21,249.2	21,249.2	0.57126	0.67955	2.85361	21,468.9

2041	19.5340	18.6651	29.4935	65.2966	0.11468	0.58879	12.4127	13.0015	0.54501	2.88778	3.43279	—	18,238.0	18,238.0	0.47991	0.56904	2.16509	18,421.8
2042	9.10350	8.75147	11.5264	25.5306	0.04541	0.21788	5.26908	5.48696	0.20173	1.27694	1.47867	—	7,520.30	7,520.30	0.19164	0.22651	0.79608	7,593.38
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.32390	1.13804	8.52349	15.7395	0.02307	0.28474	2.21543	2.50017	0.26311	0.50345	0.76657	—	3,449.18	3,449.18	0.10362	0.16406	2.13553	3,502.80
2029	4.13881	3.94443	8.90625	17.2786	0.02501	0.27450	2.57030	2.84480	0.25378	0.57810	0.83187	—	3,841.01	3,841.01	0.11107	0.18097	2.28545	3,900.00
2030	4.08889	3.85252	8.60205	16.9260	0.02501	0.25940	2.57030	2.82970	0.23368	0.57810	0.81177	—	3,797.88	3,797.88	0.10814	0.17810	2.03928	3,855.69
2031	4.04801	3.81842	8.34698	16.5795	0.02501	0.24846	2.57030	2.81876	0.22362	0.57810	0.80171	—	3,755.97	3,755.97	0.10582	0.17534	1.81231	3,812.68
2032	4.01406	3.79174	8.03305	16.2192	0.02508	0.22952	2.57734	2.80685	0.20909	0.57968	0.78877	—	3,726.83	3,726.83	0.10611	0.12961	1.59869	3,769.71
2033	3.91832	3.75029	7.75563	15.8596	0.02502	0.20996	2.57030	2.78025	0.19390	0.57810	0.77200	—	3,680.53	3,680.53	0.10566	0.12650	1.39806	3,722.26
2034	3.88954	3.72418	7.60119	15.5962	0.02502	0.19841	2.57030	2.76871	0.18328	0.57810	0.76138	—	3,647.01	3,647.01	0.10305	0.12363	1.21283	3,687.64
2035	3.86146	3.70019	7.41208	15.3427	0.02502	0.18227	2.57030	2.75256	0.16843	0.57810	0.74652	—	3,616.58	3,616.58	0.10013	0.12087	1.05125	3,656.15
2036	3.83755	3.68535	7.18220	15.1326	0.02509	0.16930	2.57734	2.74664	0.15650	0.57968	0.73618	—	3,599.04	3,599.04	0.09752	0.12120	0.90391	3,638.50
2037	3.80291	3.65355	7.03087	14.8948	0.02502	0.15896	2.57030	2.72926	0.14698	0.57810	0.72508	—	3,565.09	3,565.09	0.09709	0.11800	0.77058	3,603.45
2038	3.77498	3.63100	6.83803	14.6836	0.02502	0.14835	2.57030	2.71865	0.13722	0.57810	0.71532	—	3,543.63	3,543.63	0.09477	0.11507	0.65680	3,580.95
2039	3.75083	3.60913	6.69960	14.5256	0.02502	0.14235	2.57030	2.71264	0.13170	0.57810	0.70980	—	3,524.89	3,524.89	0.09432	0.11507	0.55705	3,562.10
2040	3.74290	3.55485	6.63194	14.4774	0.02509	0.13908	2.57734	2.71642	0.12869	0.57968	0.70837	—	3,518.06	3,518.06	0.09458	0.11251	0.47245	3,554.42
2041	3.56496	3.40638	5.38257	11.9166	0.02093	0.10745	2.26533	2.37278	0.09946	0.52702	0.62649	—	3,019.51	3,019.51	0.07946	0.09421	0.35845	3,049.93
2042	1.66139	1.59714	2.10357	4.65934	0.00829	0.03976	0.96161	1.00137	0.03681	0.23304	0.26986	—	1,245.07	1,245.07	0.03173	0.03750	0.13180	1,257.17

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	11.1867	9.39656	67.2861	135.406	0.18473	2.23592	20.9106	23.1465	2.06637	4.54990	6.61627	—	31,771.2	31,771.2	0.90276	1.49270	46.3244	32,284.9
2029	31.8727	30.4012	67.5872	140.397	0.19189	2.10575	22.7328	24.8385	1.94678	4.87866	6.82544	—	33,135.6	33,135.6	0.91958	1.53029	44.7252	33,659.3
2030	31.4898	29.6961	65.2340	137.408	0.19189	1.98992	22.7328	24.7227	1.79260	4.87866	6.67126	—	32,758.9	32,758.9	0.89625	1.50600	39.9348	33,270.1
2031	31.1761	29.4345	63.2955	134.106	0.19190	1.90603	22.7328	24.6388	1.71542	4.87866	6.59408	—	32,393.8	32,393.8	0.89484	1.11730	35.4721	32,784.6

2032	30.7924	29.1111	60.7655	130.697	0.19190	1.75587	22.7328	24.4886	1.59962	4.87866	6.47828	—	32,051.6	32,051.6	0.87522	1.09302	31.2518	32,430.4
2033	30.1616	28.8703	59.1711	127.993	0.19190	1.61065	22.7328	24.3434	1.48747	4.87866	6.36613	—	31,737.9	31,737.9	0.87381	1.06969	27.3790	32,105.9
2034	29.8993	28.6331	57.6196	125.673	0.19191	1.52207	22.7328	24.2548	1.40598	4.87866	6.28464	—	31,446.5	31,446.5	0.87143	1.04541	23.7981	31,803.6
2035	29.6876	28.4491	56.1885	123.404	0.19191	1.39822	22.7328	24.1310	1.29204	4.87866	6.17070	—	31,182.4	31,182.4	0.82707	1.02208	20.5560	31,528.2
2036	29.4224	28.2580	54.6398	121.150	0.19191	1.29521	22.7328	24.0280	1.19727	4.87866	6.07593	—	30,945.1	30,945.1	0.80279	1.02067	17.6440	31,287.0
2037	29.2371	28.0913	53.6271	119.699	0.19192	1.21943	22.7328	23.9522	1.12755	4.87866	6.00621	—	30,735.9	30,735.9	0.80137	0.99638	15.1038	31,067.9
2038	28.9836	27.8791	52.1268	117.739	0.19192	1.13805	22.7328	23.8708	1.05268	4.87866	5.93134	—	30,549.7	30,549.7	0.80137	0.97306	12.8766	30,872.6
2039	28.8193	27.7309	50.7458	116.545	0.19192	1.09198	22.7328	23.8248	1.01030	4.87866	5.88896	—	30,387.7	30,387.7	0.79758	0.97306	10.8901	30,708.5
2040	28.6825	27.2204	50.0657	115.553	0.19192	1.06399	22.7328	23.7968	0.98454	4.87866	5.86320	—	30,245.0	30,245.0	0.77796	0.94877	9.24820	30,556.4
2041	28.5427	27.0943	49.3814	114.496	0.19192	1.00990	22.7328	23.7427	0.93478	4.87866	5.81344	—	30,117.4	30,117.4	0.77796	0.94877	7.79862	30,427.4
2042	26.1733	25.1606	32.9089	77.4225	0.13037	0.62549	17.0689	17.6944	0.57911	3.97928	4.55839	—	22,077.9	22,077.9	0.53340	0.65027	5.28794	22,290.3
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	10.7355	9.25785	68.1265	126.104	0.18473	2.23592	20.9106	23.1465	2.06637	4.54990	6.61627	—	31,001.6	31,001.6	0.92061	1.49407	1.20081	31,471.0
2029	31.7431	29.8890	68.4316	130.790	0.19189	2.10575	22.7328	24.8385	1.94678	4.87866	6.82544	—	32,305.5	32,305.5	0.95882	1.53170	1.16101	32,787.1
2030	31.3775	29.5666	66.0752	128.404	0.19189	1.98992	22.7328	24.7227	1.79260	4.87866	6.67126	—	31,943.6	31,943.6	0.91446	1.50600	1.03797	32,416.3
2031	31.0638	29.3050	64.1366	125.687	0.19190	1.90603	22.7328	24.6388	1.71542	4.87866	6.59408	—	31,592.1	31,592.1	0.91446	1.48267	0.92081	32,057.7
2032	30.6997	29.0012	61.5918	122.882	0.19190	1.75587	22.7328	24.4886	1.59962	4.87866	6.47828	—	31,262.1	31,262.1	0.89343	1.45839	0.81021	31,719.8
2033	30.0910	28.7824	59.9707	120.447	0.19190	1.61065	22.7328	24.3434	1.48747	4.87866	6.36613	—	30,958.8	30,958.8	0.89343	1.06969	0.70967	31,300.6
2034	29.8310	28.5442	58.3997	118.391	0.19191	1.52207	22.7328	24.2548	1.40598	4.87866	6.28464	—	30,677.1	30,677.1	0.88964	1.04541	0.61673	31,011.5
2035	29.6179	28.3602	56.9943	116.404	0.19191	1.39822	22.7328	24.1310	1.29204	4.87866	6.17070	—	30,421.6	30,421.6	0.84669	1.02208	0.53240	30,747.9
2036	29.3493	28.1888	55.4470	114.452	0.19191	1.29521	22.7328	24.0280	1.19727	4.87866	6.07593	—	30,191.9	30,191.9	0.82241	1.02208	0.45770	30,517.5
2037	29.1640	28.0206	54.0261	113.290	0.19192	1.21943	22.7328	23.9522	1.12755	4.87866	6.00621	—	29,989.1	29,989.1	0.82099	0.99779	0.39144	30,307.4
2038	28.9694	27.8477	52.5529	111.653	0.19192	1.13805	22.7328	23.8708	1.05268	4.87866	5.93134	—	29,808.7	29,808.7	0.82100	0.97447	0.33326	30,119.9
2039	28.7841	27.6775	51.4886	110.399	0.19192	1.09198	22.7328	23.8248	1.01030	4.87866	5.88896	—	29,651.3	29,651.3	0.79758	0.97447	0.28297	29,961.9
2040	28.6669	27.2062	50.8548	109.728	0.19192	1.06399	22.7328	23.7968	0.98454	4.87866	5.86320	—	29,513.0	29,513.0	0.79758	0.95018	0.23938	29,816.3
2041	28.5022	27.0567	49.9066	108.875	0.19192	1.00990	22.7328	23.7427	0.93478	4.87866	5.81344	—	29,389.3	29,389.3	0.79758	0.95018	0.20266	29,692.6
2042	26.1467	25.1173	33.1585	72.7024	0.13037	0.62549	17.0689	17.6944	0.57911	3.97928	4.55839	—	21,458.1	21,458.1	0.55016	0.65102	0.13698	21,666.0

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	7.25425	6.23584	46.7041	86.2437	0.12640	1.56024	12.1393	13.6996	1.44171	2.75864	4.20036	—	20,833.3	20,833.3	0.62585	0.99094	12.8987	21,157.1
2029	22.6784	21.6133	48.8014	94.6774	0.13706	1.50411	14.0838	15.5879	1.39055	3.16765	4.55820	—	23,199.9	23,199.9	0.67085	1.09306	13.8042	23,556.2
2030	22.4049	21.1097	47.1345	92.7452	0.13707	1.42137	14.0838	15.5052	1.28043	3.16765	4.44807	—	22,939.4	22,939.4	0.65318	1.07571	12.3173	23,288.6
2031	22.1809	20.9228	45.7369	90.8468	0.13707	1.36145	14.0838	15.4453	1.22530	3.16765	4.39295	—	22,686.3	22,686.3	0.63917	1.05905	10.9464	23,028.8
2032	21.9949	20.7766	44.0167	88.8723	0.13745	1.25763	14.1224	15.3800	1.14572	3.17633	4.32204	—	22,510.3	22,510.3	0.64092	0.78287	9.65615	22,769.2
2033	21.4702	20.5495	42.4966	86.9019	0.13707	1.15046	14.0838	15.2343	1.06248	3.16765	4.23013	—	22,230.6	22,230.6	0.63816	0.76407	8.44438	22,482.7
2034	21.3126	20.4065	41.6504	85.4588	0.13708	1.08719	14.0838	15.1710	1.00427	3.16765	4.17192	—	22,028.1	22,028.1	0.62245	0.74672	7.32554	22,273.5
2035	21.1587	20.2750	40.6142	84.0694	0.13708	0.99873	14.0838	15.0825	0.92289	3.16765	4.09053	—	21,844.3	21,844.3	0.60478	0.73006	6.34959	22,083.3
2036	21.0277	20.1937	39.3545	82.9183	0.13746	0.92769	14.1224	15.0501	0.85754	3.17633	4.03386	—	21,738.4	21,738.4	0.58904	0.73206	5.45968	21,976.7
2037	20.8379	20.0194	38.5253	81.6152	0.13708	0.87102	14.0838	14.9548	0.80540	3.16765	3.97304	—	21,533.4	21,533.4	0.58642	0.71271	4.65432	21,765.1
2038	20.6848	19.8959	37.4687	80.4579	0.13708	0.81289	14.0838	14.8967	0.75191	3.16765	3.91956	—	21,403.7	21,403.7	0.57241	0.69504	3.96711	21,629.1
2039	20.5525	19.7760	36.7101	79.5924	0.13709	0.77999	14.0838	14.8638	0.72164	3.16765	3.88929	—	21,290.5	21,290.5	0.56970	0.69504	3.36459	21,515.3
2040	20.5091	19.4786	36.3394	79.3281	0.13746	0.76207	14.1224	14.8845	0.70517	3.17633	3.88150	—	21,249.2	21,249.2	0.57126	0.67955	2.85361	21,468.9
2041	19.5340	18.6651	29.4935	65.2966	0.11468	0.58879	12.4127	13.0015	0.54501	2.88778	3.43279	—	18,238.0	18,238.0	0.47991	0.56904	2.16509	18,421.8
2042	9.10350	8.75147	11.5264	25.5306	0.04541	0.21788	5.26908	5.48696	0.20173	1.27694	1.47867	—	7,520.30	7,520.30	0.19164	0.22651	0.79608	7,593.38
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.32390	1.13804	8.52349	15.7395	0.02307	0.28474	2.21543	2.50017	0.26311	0.50345	0.76657	—	3,449.18	3,449.18	0.10362	0.16406	2.13553	3,502.80
2029	4.13881	3.94443	8.90625	17.2786	0.02501	0.27450	2.57030	2.84480	0.25378	0.57810	0.83187	—	3,841.01	3,841.01	0.11107	0.18097	2.28545	3,900.00
2030	4.08889	3.85252	8.60205	16.9260	0.02501	0.25940	2.57030	2.82970	0.23368	0.57810	0.81177	—	3,797.88	3,797.88	0.10814	0.17810	2.03928	3,855.69
2031	4.04801	3.81842	8.34698	16.5795	0.02501	0.24846	2.57030	2.81876	0.22362	0.57810	0.80171	—	3,755.97	3,755.97	0.10582	0.17534	1.81231	3,812.68
2032	4.01406	3.79174	8.03305	16.2192	0.02508	0.22952	2.57734	2.80685	0.20909	0.57968	0.78877	—	3,726.83	3,726.83	0.10611	0.12961	1.59869	3,769.71
2033	3.91832	3.75029	7.75563	15.8596	0.02502	0.20996	2.57030	2.78025	0.19390	0.57810	0.77200	—	3,680.53	3,680.53	0.10566	0.12650	1.39806	3,722.26
2034	3.88954	3.72418	7.60119	15.5962	0.02502	0.19841	2.57030	2.76871	0.18328	0.57810	0.76138	—	3,647.01	3,647.01	0.10305	0.12363	1.21283	3,687.64
2035	3.86146	3.70019	7.41208	15.3427	0.02502	0.18227	2.57030	2.75256	0.16843	0.57810	0.74652	—	3,616.58	3,616.58	0.10013	0.12087	1.05125	3,656.15
2036	3.83755	3.68535	7.18220	15.1326	0.02509	0.16930	2.57734	2.74664	0.15650	0.57968	0.73618	—	3,599.04	3,599.04	0.09752	0.12120	0.90391	3,638.50
2037	3.80291	3.65355	7.03087	14.8948	0.02502	0.15896	2.57030	2.72926	0.14698	0.57810	0.72508	—	3,565.09	3,565.09	0.09709	0.11800	0.77058	3,603.45
2038	3.77498	3.63100	6.83803	14.6836	0.02502	0.14835	2.57030	2.71865	0.13722	0.57810	0.71532	—	3,543.63	3,543.63	0.09477	0.11507	0.65680	3,580.95

2039	3.75083	3.60913	6.69960	14.5256	0.02502	0.14235	2.57030	2.71264	0.13170	0.57810	0.70980	—	3,524.89	3,524.89	0.09432	0.11507	0.55705	3,562.10
2040	3.74290	3.55485	6.63194	14.4774	0.02509	0.13908	2.57734	2.71642	0.12869	0.57968	0.70837	—	3,518.06	3,518.06	0.09458	0.11251	0.47245	3,554.42
2041	3.56496	3.40638	5.38257	11.9166	0.02093	0.10745	2.26533	2.37278	0.09946	0.52702	0.62649	—	3,019.51	3,019.51	0.07946	0.09421	0.35845	3,049.93
2042	1.66139	1.59714	2.10357	4.65934	0.00829	0.03976	0.96161	1.00137	0.03681	0.23304	0.26986	—	1,245.07	1,245.07	0.03173	0.03750	0.13180	1,257.17

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	120.029	115.530	40.8382	427.973	0.88280	1.59980	84.4653	86.0651	1.55189	21.4290	22.9808	2,145.79	122,912	125,058	223.541	6.21995	685.305	133,185
Mit.	118.953	114.992	31.6453	424.061	0.82413	0.85654	84.4653	85.3218	0.80863	21.4290	22.2376	2,145.79	111,246	113,392	222.508	6.19800	685.305	121,487
% Reduced	1%	< 0.5%	23%	1%	7%	46%	—	1%	48%	—	3%	—	9%	9%	< 0.5%	< 0.5%	—	9%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	104.035	100.422	42.7253	275.510	0.83118	1.49345	84.4653	85.9587	1.47150	21.4290	22.9005	2,145.79	117,918	120,064	223.778	6.43105	652.802	128,228
Mit.	102.959	99.8843	33.5324	271.599	0.77250	0.75019	84.4653	85.2155	0.72825	21.4290	22.1572	2,145.79	106,252	108,398	222.745	6.40910	652.802	116,529
% Reduced	1%	1%	22%	1%	7%	50%	—	1%	51%	—	3%	—	10%	10%	< 0.5%	< 0.5%	—	9%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	111.026	106.979	42.3628	339.078	0.84095	1.54462	78.0445	79.5891	1.50995	19.8225	21.3325	2,145.79	118,792	120,938	223.686	6.36150	666.288	129,092
Mit.	109.950	106.441	33.1699	335.166	0.78227	0.80137	78.0445	78.8459	0.76670	19.8225	20.5892	2,145.79	107,126	109,272	222.653	6.33956	666.288	117,394
% Reduced	1%	1%	22%	1%	7%	48%	—	1%	49%	—	3%	—	10%	10%	< 0.5%	< 0.5%	—	9%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.2623	19.5237	7.73121	61.8818	0.15347	0.28189	14.2431	14.5250	0.27557	3.61761	3.89318	355.259	19,667.4	20,022.6	37.0337	1.05322	110.312	21,372.6

Mit.	20.0659	19.4256	6.05351	61.1679	0.14276	0.14625	14.2431	14.3894	0.13992	3.61761	3.75753	355.259	17,735.9	18,091.2	36.8628	1.04959	110.312	19,435.9
% Reduced	1%	1%	22%	1%	7%	48%	—	1%	49%	—	3%	—	10%	10%	< 0.5%	< 0.5%	—	9%
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	40.0000	40.0000	100.0000	40.0000	—	—	15.0000	—	—	10.00000	—	—	—	—	—	—	40,000.0
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	No
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	43.5898	40.8672	25.2930	290.909	0.78677	0.35483	84.4653	84.8201	0.33290	21.4290	21.7618	—	80,196.8	80,196.8	2.90815	3.34445	33.3683	81,299.5
Area	74.7917	73.8388	1.15434	128.786	0.00617	0.10667	—	0.10667	0.08069	—	0.08069	—	396.466	396.466	0.01659	0.00333	—	397.874
Energy	1.64754	0.82377	14.3909	8.27817	0.08987	1.13830	—	1.13830	1.13830	—	1.13830	—	39,111.5	39,111.5	3.12818	0.22112	—	39,255.6
Water	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Waste	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Total	120.029	115.530	40.8382	427.973	0.88280	1.59980	84.4653	86.0651	1.55189	21.4290	22.9808	2,145.79	122,912	125,058	223.541	6.21995	685.305	133,185
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	42.5678	39.7790	28.3344	267.232	0.74131	0.35514	84.4653	84.8204	0.33320	21.4290	21.7622	—	75,599.3	75,599.3	3.16209	3.55888	0.86531	76,739.8
Area	59.8195	59.8195	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	1.64754	0.82377	14.3909	8.27817	0.08987	1.13830	—	1.13830	1.13830	—	1.13830	—	39,111.5	39,111.5	3.12818	0.22112	—	39,255.6
Water	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Waste	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Total	104.035	100.422	42.7253	275.510	0.83118	1.49345	84.4653	85.9587	1.47150	21.4290	22.9005	2,145.79	117,918	120,064	223.778	6.43105	652.802	128,228
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	42.1755	39.4225	27.4027	267.289	0.74804	0.35372	78.0445	78.3982	0.33186	19.8225	20.1544	—	76,277.7	76,277.7	3.06176	3.48770	14.3515	77,407.9
Area	67.2031	66.7331	0.56926	63.5111	0.00304	0.05260	—	0.05260	0.03979	—	0.03979	—	195.517	195.517	0.00818	0.00164	—	196.212
Energy	1.64754	0.82377	14.3909	8.27817	0.08987	1.13830	—	1.13830	1.13830	—	1.13830	—	39,111.5	39,111.5	3.12818	0.22112	—	39,255.6
Water	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Waste	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Total	111.026	106.979	42.3628	339.078	0.84095	1.54462	78.0445	79.5891	1.50995	19.8225	21.3325	2,145.79	118,792	120,938	223.686	6.36150	666.288	129,092
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.69703	7.19460	5.00099	48.7802	0.13652	0.06455	14.2431	14.3077	0.06056	3.61761	3.67818	—	12,628.6	12,628.6	0.50691	0.57743	2.37605	12,815.8
Area	12.2646	12.1788	0.10389	11.5908	0.00056	0.00960	—	0.00960	0.00726	—	0.00726	—	32.3701	32.3701	0.00135	0.00027	—	32.4851
Energy	0.30068	0.15034	2.62633	1.51077	0.01640	0.20774	—	0.20774	0.20774	—	0.20774	—	6,475.36	6,475.36	0.51791	0.03661	—	6,499.22
Water	—	—	—	—	—	—	—	—	—	—	—	178.232	530.996	709.228	18.3143	0.43891	—	1,297.88
Waste	—	—	—	—	—	—	—	—	—	—	—	177.027	0.00000	177.027	17.6932	0.00000	—	619.358
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107.935	107.935
Total	20.2623	19.5237	7.73121	61.8818	0.15347	0.28189	14.2431	14.5250	0.27557	3.61761	3.89318	355.259	19,667.4	20,022.6	37.0337	1.05322	110.312	21,372.6

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	43.5898	40.8672	25.2930	290.909	0.78677	0.35483	84.4653	84.8201	0.33290	21.4290	21.7618	—	80,196.8	80,196.8	2.90815	3.34445	33.3683	81,299.5
Area	74.7917	73.8388	1.15434	128.786	0.00617	0.10667	—	0.10667	0.08069	—	0.08069	—	396.466	396.466	0.01659	0.00333	—	397.874
Energy	0.57178	0.28589	5.19799	4.36631	0.03119	0.39505	—	0.39505	0.39505	—	0.39505	—	27,445.6	27,445.6	2.09571	0.19917	—	27,557.4

Water	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Waste	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Total	118.953	114.992	31.6453	424.061	0.82413	0.85654	84.4653	85.3218	0.80863	21.4290	22.2376	2,145.79	111,246	113,392	222.508	6.19800	685.305	121,487
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	42.5678	39.7790	28.3344	267.232	0.74131	0.35514	84.4653	84.8204	0.33320	21.4290	21.7622	—	75,599.3	75,599.3	3.16209	3.55888	0.86531	76,739.8
Area	59.8195	59.8195	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.57178	0.28589	5.19799	4.36631	0.03119	0.39505	—	0.39505	0.39505	—	0.39505	—	27,445.6	27,445.6	2.09571	0.19917	—	27,557.4
Water	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Waste	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Total	102.959	99.8843	33.5324	271.599	0.77250	0.75019	84.4653	85.2155	0.72825	21.4290	22.1572	2,145.79	106,252	108,398	222.745	6.40910	652.802	116,529
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	42.1755	39.4225	27.4027	267.289	0.74804	0.35372	78.0445	78.3982	0.33186	19.8225	20.1544	—	76,277.7	76,277.7	3.06176	3.48770	14.3515	77,407.9
Area	67.2031	66.7331	0.56926	63.5111	0.00304	0.05260	—	0.05260	0.03979	—	0.03979	—	195.517	195.517	0.00818	0.00164	—	196.212
Energy	0.57178	0.28589	5.19799	4.36631	0.03119	0.39505	—	0.39505	0.39505	—	0.39505	—	27,445.6	27,445.6	2.09571	0.19917	—	27,557.4
Water	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Waste	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Total	109.950	106.441	33.1699	335.166	0.78227	0.80137	78.0445	78.8459	0.76670	19.8225	20.5892	2,145.79	107,126	109,272	222.653	6.33956	666.288	117,394
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.69703	7.19460	5.00099	48.7802	0.13652	0.06455	14.2431	14.3077	0.06056	3.61761	3.67818	—	12,628.6	12,628.6	0.50691	0.57743	2.37605	12,815.8
Area	12.2646	12.1788	0.10389	11.5908	0.00056	0.00960	—	0.00960	0.00726	—	0.00726	—	32.3701	32.3701	0.00135	0.00027	—	32.4851
Energy	0.10435	0.05217	0.94863	0.79685	0.00569	0.07210	—	0.07210	0.07210	—	0.07210	—	4,543.94	4,543.94	0.34697	0.03298	—	4,562.44
Water	—	—	—	—	—	—	—	—	—	—	—	178.232	530.996	709.228	18.3143	0.43891	—	1,297.88
Waste	—	—	—	—	—	—	—	—	—	—	—	177.027	0.00000	177.027	17.6932	0.00000	—	619.358

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107.935	107.935
Total	20.0659	19.4256	6.05351	61.1679	0.14276	0.14625	14.2431	14.3894	0.13992	3.61761	3.75753	355.259	17,735.9	18,091.2	36.8628	1.04959	110.312	19,435.9

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51944	0.43648	4.56360	7.34362	0.01043	0.18838	—	0.18838	0.17331	—	0.17331	—	1,128.88	1,128.88	0.04579	0.00916	—	1,132.75
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00154	0.03527	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.73098	9.73098	0.00097	0.00154	0.01375	10.2289
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51944	0.43648	4.56360	7.34362	0.01043	0.18838	—	0.18838	0.17331	—	0.17331	—	1,128.88	1,128.88	0.04579	0.00916	—	1,132.75
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00132	0.03739	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.80576	9.80576	0.00097	0.00159	0.00036	10.3034

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37001	0.31091	3.25079	5.23107	0.00743	0.13419	—	0.13419	0.12346	—	0.12346	—	804.132	804.132	0.03262	0.00652	—	806.891
Dust From Material Movement	—	—	—	—	—	—	0.09821	0.09821	—	0.01060	0.01060	—	—	—	—	—	—	—
Onsite truck	0.00185	0.00104	0.02588	0.01705	0.00006	0.00009	0.36547	0.36556	0.00009	0.03656	0.03665	—	6.95402	6.95402	0.00069	0.00113	0.00423	7.31247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06753	0.05674	0.59327	0.95467	0.00136	0.02449	—	0.02449	0.02253	—	0.02253	—	133.133	133.133	0.00540	0.00108	—	133.590
Dust From Material Movement	—	—	—	—	—	—	0.01792	0.01792	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00019	0.00472	0.00311	0.00001	0.00002	0.06670	0.06672	0.00002	0.00667	0.00669	—	1.15132	1.15132	0.00011	0.00019	0.00070	1.21066
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08444	0.07496	0.06900	1.16095	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	264.426	264.426	0.00309	0.00948	0.79203	268.120
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01543	0.00476	0.31015	0.09753	0.00185	0.00529	0.07416	0.07945	0.00529	0.02030	0.02559	—	260.609	260.609	0.00864	0.04162	0.54982	273.778
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07363	0.07187	0.07893	0.93035	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	245.311	245.311	0.00353	0.00948	0.02053	248.244
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.01499	0.00432	0.32778	0.09894	0.00185	0.00529	0.07416	0.07945	0.00529	0.02030	0.02559	—	260.758	260.758	0.00864	0.04171	0.01425	273.418
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05182	0.05057	0.05559	0.69083	0.00000	0.00000	0.17273	0.17273	0.00000	0.04028	0.04028	—	177.629	177.629	0.00251	0.00675	0.24346	179.948
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01087	0.00327	0.23079	0.06991	0.00132	0.00377	0.04991	0.05368	0.00377	0.01373	0.01750	—	185.684	185.684	0.00616	0.02971	0.16906	194.861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00946	0.00923	0.01015	0.12608	0.00000	0.00000	0.03152	0.03152	0.00000	0.00735	0.00735	—	29.4086	29.4086	0.00042	0.00112	0.04031	29.7924
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00198	0.00060	0.04212	0.01276	0.00024	0.00069	0.00911	0.00980	0.00069	0.00251	0.00319	—	30.7421	30.7421	0.00102	0.00492	0.02799	32.2614

3.2. Linear, Grubbing & Land Clearing (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51944	0.43648	4.56360	7.34362	0.01043	0.18838	—	0.18838	0.17331	—	0.17331	—	1,128.88	1,128.88	0.04579	0.00916	—	1,132.75
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00154	0.03527	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.73098	9.73098	0.00097	0.00154	0.01375	10.2289
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.51944	0.43648	4.56360	7.34362	0.01043	0.18838	—	0.18838	0.17331	—	0.17331	—	1,128.88	1,128.88	0.04579	0.00916	—	1,132.75
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00132	0.03739	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.80576	9.80576	0.00097	0.00159	0.00036	10.3034
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37001	0.31091	3.25079	5.23107	0.00743	0.13419	—	0.13419	0.12346	—	0.12346	—	804.132	804.132	0.03262	0.00652	—	806.891
Dust From Material Movement	—	—	—	—	—	—	0.09821	0.09821	—	0.01060	0.01060	—	—	—	—	—	—	—
Onsite truck	0.00185	0.00104	0.02588	0.01705	0.00006	0.00009	0.36547	0.36556	0.00009	0.03656	0.03665	—	6.95402	6.95402	0.00069	0.00113	0.00423	7.31247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06753	0.05674	0.59327	0.95467	0.00136	0.02449	—	0.02449	0.02253	—	0.02253	—	133.133	133.133	0.00540	0.00108	—	133.590
Dust From Material Movement	—	—	—	—	—	—	0.01792	0.01792	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00019	0.00472	0.00311	0.00001	0.00002	0.06670	0.06672	0.00002	0.00667	0.00669	—	1.15132	1.15132	0.00011	0.00019	0.00070	1.21066
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08444	0.07496	0.06900	1.16095	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	264.426	264.426	0.00309	0.00948	0.79203	268.120

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01543	0.00476	0.31015	0.09753	0.00185	0.00529	0.07416	0.07945	0.00529	0.02030	0.02559	—	260.609	260.609	0.00864	0.04162	0.54982	273.778
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07363	0.07187	0.07893	0.93035	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	245.311	245.311	0.00353	0.00948	0.02053	248.244
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01499	0.00432	0.32778	0.09894	0.00185	0.00529	0.07416	0.07945	0.00529	0.02030	0.02559	—	260.758	260.758	0.00864	0.04171	0.01425	273.418
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05182	0.05057	0.05559	0.69083	0.00000	0.00000	0.17273	0.17273	0.00000	0.04028	0.04028	—	177.629	177.629	0.00251	0.00675	0.24346	179.948
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01087	0.00327	0.23079	0.06991	0.00132	0.00377	0.04991	0.05368	0.00377	0.01373	0.01750	—	185.684	185.684	0.00616	0.02971	0.16906	194.861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00946	0.00923	0.01015	0.12608	0.00000	0.00000	0.03152	0.03152	0.00000	0.00735	0.00735	—	29.4086	29.4086	0.00042	0.00112	0.04031	29.7924
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00198	0.00060	0.04212	0.01276	0.00024	0.00069	0.00911	0.00980	0.00069	0.00251	0.00319	—	30.7421	30.7421	0.00102	0.00492	0.02799	32.2614

3.3. Linear, Grubbing & Land Clearing (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50267	0.42238	4.42120	7.34812	0.01043	0.17244	—	0.17244	0.15864	—	0.15864	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00154	0.03470	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.51493	9.51493	0.00097	0.00150	0.01261	9.99854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50267	0.42238	4.42120	7.34812	0.01043	0.17244	—	0.17244	0.15864	—	0.15864	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00132	0.03677	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.59037	9.59037	0.00097	0.00154	0.00033	10.0748
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35905	0.30170	3.15800	5.24866	0.00745	0.12317	—	0.12317	0.11332	—	0.11332	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00104	0.02554	0.01710	0.00006	0.00009	0.36647	0.36657	0.00009	0.03666	0.03675	—	6.81899	6.81899	0.00069	0.00107	0.00389	7.15930
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06553	0.05506	0.57633	0.95788	0.00136	0.02248	—	0.02248	0.02068	—	0.02068	—	133.556	133.556	0.00542	0.00108	—	134.014

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00466	0.00312	0.00001	0.00002	0.06688	0.06690	0.00002	0.00669	0.00671	—	1.12896	1.12896	0.00011	0.00018	0.00064	1.18530
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07275	0.07187	0.06041	1.08776	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	259.808	259.808	0.00265	0.00948	0.70921	263.409
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01367	0.00476	0.30062	0.09586	0.00185	0.00529	0.07416	0.07945	0.00529	0.02030	0.02559	—	253.882	253.882	0.00864	0.03986	0.50442	266.480
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07011	0.06063	0.06989	0.87039	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	241.047	241.047	0.00353	0.00948	0.01843	243.978
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01323	0.00432	0.31650	0.09727	0.00185	0.00529	0.07416	0.07945	0.00529	0.02030	0.02559	—	254.031	254.031	0.00864	0.03995	0.01306	266.164
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05008	0.04913	0.04960	0.65052	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	175.021	175.021	0.00220	0.00677	0.21913	177.313
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00964	0.00328	0.22462	0.06891	0.00132	0.00378	0.05005	0.05383	0.00378	0.01377	0.01755	—	181.388	181.388	0.00617	0.02847	0.15547	190.182
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00914	0.00897	0.00905	0.11872	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.9767	28.9767	0.00037	0.00112	0.03628	29.3561
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00176	0.00060	0.04099	0.01258	0.00024	0.00069	0.00913	0.00982	0.00069	0.00251	0.00320	—	30.0308	30.0308	0.00102	0.00471	0.02574	31.4868

3.4. Linear, Grubbing & Land Clearing (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50267	0.42238	4.42120	7.34812	0.01043	0.17244	—	0.17244	0.15864	—	0.15864	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00154	0.03470	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.51493	9.51493	0.00097	0.00150	0.01261	9.99854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50267	0.42238	4.42120	7.34812	0.01043	0.17244	—	0.17244	0.15864	—	0.15864	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00132	0.03677	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.59037	9.59037	0.00097	0.00154	0.00033	10.0748
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35905	0.30170	3.15800	5.24866	0.00745	0.12317	—	0.12317	0.11332	—	0.11332	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00183	0.00104	0.02554	0.01710	0.00006	0.00009	0.36647	0.36657	0.00009	0.03666	0.03675	—	6.81899	6.81899	0.00069	0.00107	0.00389	7.15930
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06553	0.05506	0.57633	0.95788	0.00136	0.02248	—	0.02248	0.02068	—	0.02068	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00466	0.00312	0.00001	0.00002	0.06688	0.06690	0.00002	0.00669	0.00671	—	1.12896	1.12896	0.00011	0.00018	0.00064	1.18530
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07275	0.07187	0.06041	1.08776	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	259.808	259.808	0.00265	0.00948	0.70921	263.409
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01367	0.00476	0.30062	0.09586	0.00185	0.00529	0.07416	0.07945	0.00529	0.02030	0.02559	—	253.882	253.882	0.00864	0.03986	0.50442	266.480
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07011	0.06063	0.06989	0.87039	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	241.047	241.047	0.00353	0.00948	0.01843	243.978
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01323	0.00432	0.31650	0.09727	0.00185	0.00529	0.07416	0.07945	0.00529	0.02030	0.02559	—	254.031	254.031	0.00864	0.03995	0.01306	266.164
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05008	0.04913	0.04960	0.65052	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	175.021	175.021	0.00220	0.00677	0.21913	177.313
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00964	0.00328	0.22462	0.06891	0.00132	0.00378	0.05005	0.05383	0.00378	0.01377	0.01755	—	181.388	181.388	0.00617	0.02847	0.15547	190.182
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00914	0.00897	0.00905	0.11872	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.9767	28.9767	0.00037	0.00112	0.03628	29.3561

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00176	0.00060	0.04099	0.01258	0.00024	0.00069	0.00913	0.00982	0.00069	0.00251	0.00320	—	30.0308	30.0308	0.00102	0.00471	0.02574	31.4868

3.5. Linear, Grubbing & Land Clearing (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48077	0.40398	4.30703	7.33575	0.01043	0.15864	—	0.15864	0.14595	—	0.14595	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03417	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.30540	9.30540	0.00093	0.00150	0.01148	9.78677
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48077	0.40398	4.30703	7.33575	0.01043	0.15864	—	0.15864	0.14595	—	0.14595	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03629	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.38160	9.38160	0.00088	0.00150	0.00030	9.85068
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.34341	0.28856	3.07645	5.23982	0.00745	0.11331	—	0.11331	0.10425	—	0.10425	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02516	0.01710	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.66958	6.66958	0.00063	0.00107	0.00354	7.00797
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06267	0.05266	0.56145	0.95627	0.00136	0.02068	—	0.02068	0.01903	—	0.01903	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00459	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.10423	1.10423	0.00010	0.00018	0.00059	1.16025
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06967	0.06063	0.05137	1.02272	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	255.455	255.455	0.00265	0.00948	0.63222	258.979
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01358	0.00476	0.29119	0.09418	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	247.218	247.218	0.00688	0.03986	0.45902	259.727
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06746	0.05798	0.06129	0.81902	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	237.022	237.022	0.00309	0.00948	0.01645	239.941
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01314	0.00432	0.30715	0.09559	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	247.370	247.370	0.00679	0.03986	0.01190	259.430
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04787	0.04110	0.04346	0.60863	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	172.101	172.101	0.00220	0.00677	0.19497	174.369

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00957	0.00328	0.21788	0.06771	0.00132	0.00378	0.05005	0.05383	0.00252	0.01377	0.01629	—	176.630	176.630	0.00485	0.02847	0.14160	185.377
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00874	0.00750	0.00793	0.11108	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.4933	28.4933	0.00037	0.00112	0.03228	28.8688
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00175	0.00060	0.03976	0.01236	0.00024	0.00069	0.00913	0.00982	0.00046	0.00251	0.00297	—	29.2431	29.2431	0.00080	0.00471	0.02344	30.6913

3.6. Linear, Grubbing & Land Clearing (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48077	0.40398	4.30703	7.33575	0.01043	0.15864	—	0.15864	0.14595	—	0.14595	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03417	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.30540	9.30540	0.00093	0.00150	0.01148	9.78677
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48077	0.40398	4.30703	7.33575	0.01043	0.15864	—	0.15864	0.14595	—	0.14595	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03629	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.38160	9.38160	0.00088	0.00150	0.00030	9.85068
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34341	0.28856	3.07645	5.23982	0.00745	0.11331	—	0.11331	0.10425	—	0.10425	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02516	0.01710	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.66958	6.66958	0.00063	0.00107	0.00354	7.00797
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06267	0.05266	0.56145	0.95627	0.00136	0.02068	—	0.02068	0.01903	—	0.01903	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00459	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.10423	1.10423	0.00010	0.00018	0.00059	1.16025
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06967	0.06063	0.05137	1.02272	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	255.455	255.455	0.00265	0.00948	0.63222	258.979
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01358	0.00476	0.29119	0.09418	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	247.218	247.218	0.00688	0.03986	0.45902	259.727

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06746	0.05798	0.06129	0.81902	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	237.022	237.022	0.00309	0.00948	0.01645	239.941
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01314	0.00432	0.30715	0.09559	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	247.370	247.370	0.00679	0.03986	0.01190	259.430
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04787	0.04110	0.04346	0.60863	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	172.101	172.101	0.00220	0.00677	0.19497	174.369
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00957	0.00328	0.21788	0.06771	0.00132	0.00378	0.05005	0.05383	0.00252	0.01377	0.01629	—	176.630	176.630	0.00485	0.02847	0.14160	185.377
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00874	0.00750	0.00793	0.11108	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.4933	28.4933	0.00037	0.00112	0.03228	28.8688
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00175	0.00060	0.03976	0.01236	0.00024	0.00069	0.00913	0.00982	0.00046	0.00251	0.00297	—	29.2431	29.2431	0.00080	0.00471	0.02344	30.6913

3.7. Linear, Grubbing & Land Clearing (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46726	0.39262	4.19110	7.32572	0.01043	0.14953	—	0.14953	0.13756	—	0.13756	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.24
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00260	0.00154	0.03369	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.10412	9.10412	0.00088	0.00146	0.01040	9.57018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46726	0.39262	4.19110	7.32572	0.01043	0.14953	—	0.14953	0.13756	—	0.13756	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.24
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03580	0.02429	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.18106	9.18106	0.00088	0.00146	0.00027	9.63698
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33375	0.28045	2.99364	5.23266	0.00745	0.10680	—	0.10680	0.09826	—	0.09826	—	806.689	806.689	0.03272	0.00654	—	809.458
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02485	0.01707	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.52603	6.52603	0.00063	0.00104	0.00320	6.85470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06091	0.05118	0.54634	0.95496	0.00136	0.01949	—	0.01949	0.01793	—	0.01793	—	133.557	133.557	0.00542	0.00108	—	134.015
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00453	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.08046	1.08046	0.00010	0.00017	0.00053	1.13487

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06702	0.05798	0.05093	0.95813	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	251.432	251.432	0.00265	0.00132	0.56107	252.453
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01358	0.00476	0.28351	0.09083	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	240.683	240.683	0.00679	0.03810	0.41614	252.621
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06482	0.05534	0.06085	0.76765	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	233.304	233.304	0.00309	0.00948	0.01458	236.221
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01314	0.00432	0.29948	0.09215	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	240.837	240.837	0.00679	0.03810	0.01077	252.370
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04598	0.03921	0.04283	0.57289	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	169.400	169.400	0.00189	0.00677	0.17330	171.638
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00957	0.00328	0.21246	0.06526	0.00132	0.00378	0.05005	0.05383	0.00252	0.01377	0.01629	—	171.963	171.963	0.00485	0.02721	0.12809	180.321
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00839	0.00716	0.00782	0.10455	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.0461	28.0461	0.00031	0.00112	0.02869	28.4167
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00175	0.00060	0.03877	0.01191	0.00024	0.00069	0.00913	0.00982	0.00046	0.00251	0.00297	—	28.4704	28.4704	0.00080	0.00451	0.02121	29.8542

3.8. Linear, Grubbing & Land Clearing (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.46726	0.39262	4.19110	7.32572	0.01043	0.14953	—	0.14953	0.13756	—	0.13756	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.24
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03369	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.10412	9.10412	0.00088	0.00146	0.01040	9.57018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46726	0.39262	4.19110	7.32572	0.01043	0.14953	—	0.14953	0.13756	—	0.13756	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.24
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03580	0.02429	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.18106	9.18106	0.00088	0.00146	0.00027	9.63698
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33375	0.28045	2.99364	5.23266	0.00745	0.10680	—	0.10680	0.09826	—	0.09826	—	806.689	806.689	0.03272	0.00654	—	809.458
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02485	0.01707	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.52603	6.52603	0.00063	0.00104	0.00320	6.85470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06091	0.05118	0.54634	0.95496	0.00136	0.01949	—	0.01949	0.01793	—	0.01793	—	133.557	133.557	0.00542	0.00108	—	134.015

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00453	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.08046	1.08046	0.00010	0.00017	0.00053	1.13487
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06702	0.05798	0.05093	0.95813	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	251.432	251.432	0.00265	0.00132	0.56107	252.453
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01358	0.00476	0.28351	0.09083	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	240.683	240.683	0.00679	0.03810	0.41614	252.621
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06482	0.05534	0.06085	0.76765	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	233.304	233.304	0.00309	0.00948	0.01458	236.221
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01314	0.00432	0.29948	0.09215	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	240.837	240.837	0.00679	0.03810	0.01077	252.370
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04598	0.03921	0.04283	0.57289	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	169.400	169.400	0.00189	0.00677	0.17330	171.638
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00957	0.00328	0.21246	0.06526	0.00132	0.00378	0.05005	0.05383	0.00252	0.01377	0.01629	—	171.963	171.963	0.00485	0.02721	0.12809	180.321
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00839	0.00716	0.00782	0.10455	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.0461	28.0461	0.00031	0.00112	0.02869	28.4167
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00175	0.00060	0.03877	0.01191	0.00024	0.00069	0.00913	0.00982	0.00046	0.00251	0.00297	—	28.4704	28.4704	0.00080	0.00451	0.02121	29.8542

3.9. Linear, Grubbing & Land Clearing (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45410	0.38157	4.05620	7.31807	0.01043	0.14129	—	0.14129	0.12999	—	0.12999	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03329	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.91576	8.91576	0.00088	0.00146	0.00933	9.38074
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45410	0.38157	4.05620	7.31807	0.01043	0.14129	—	0.14129	0.12999	—	0.12999	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03541	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.99349	8.99349	0.00084	0.00146	0.00024	9.44828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32524	0.27329	2.90523	5.24151	0.00747	0.10120	—	0.10120	0.09310	—	0.09310	—	808.894	808.894	0.03281	0.00656	—	811.670
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—

Onsite truck	0.00174	0.00104	0.02457	0.01715	0.00006	0.00009	0.36748	0.36757	0.00006	0.03676	0.03682	—	6.40922	6.40922	0.00063	0.00104	0.00288	6.73845
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05936	0.04988	0.53020	0.95658	0.00136	0.01847	—	0.01847	0.01699	—	0.01699	—	133.922	133.922	0.00543	0.00109	—	134.381
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00448	0.00313	0.00001	0.00002	0.06706	0.06708	0.00001	0.00671	0.00672	—	1.06112	1.06112	0.00010	0.00017	0.00048	1.11563
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06393	0.05490	0.04233	0.90257	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	247.789	247.789	0.00220	0.00132	0.49458	248.732
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01173	0.00476	0.27602	0.08915	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	234.477	234.477	0.00679	0.03810	0.37327	246.373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06217	0.05269	0.05181	0.72620	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	229.933	229.933	0.00265	0.00948	0.01283	232.837
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01129	0.00432	0.29198	0.09057	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	234.633	234.633	0.00670	0.03810	0.00966	246.162
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04453	0.03774	0.03679	0.53956	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	167.410	167.410	0.00189	0.00095	0.15289	167.893
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00827	0.00328	0.20635	0.06430	0.00133	0.00379	0.05018	0.05397	0.00253	0.01381	0.01634	—	167.989	167.989	0.00486	0.02729	0.11525	176.357
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00813	0.00689	0.00671	0.09847	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	27.7166	27.7166	0.00031	0.00016	0.02531	27.7965

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00151	0.00060	0.03766	0.01173	0.00024	0.00069	0.00916	0.00985	0.00046	0.00252	0.00298	—	27.8125	27.8125	0.00081	0.00452	0.01908	29.1980

3.10. Linear, Grubbing & Land Clearing (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45410	0.38157	4.05620	7.31807	0.01043	0.14129	—	0.14129	0.12999	—	0.12999	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03329	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.91576	8.91576	0.00088	0.00146	0.00933	9.38074
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45410	0.38157	4.05620	7.31807	0.01043	0.14129	—	0.14129	0.12999	—	0.12999	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03541	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.99349	8.99349	0.00084	0.00146	0.00024	9.44828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.32524	0.27329	2.90523	5.24151	0.00747	0.10120	—	0.10120	0.09310	—	0.09310	—	808.894	808.894	0.03281	0.00656	—	811.670
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00104	0.02457	0.01715	0.00006	0.00009	0.36748	0.36757	0.00006	0.03676	0.03682	—	6.40922	6.40922	0.00063	0.00104	0.00288	6.73845
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05936	0.04988	0.53020	0.95658	0.00136	0.01847	—	0.01847	0.01699	—	0.01699	—	133.922	133.922	0.00543	0.00109	—	134.381
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00448	0.00313	0.00001	0.00002	0.06706	0.06708	0.00001	0.00671	0.00672	—	1.06112	1.06112	0.00010	0.00017	0.00048	1.11563
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06393	0.05490	0.04233	0.90257	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	247.789	247.789	0.00220	0.00132	0.49458	248.732
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01173	0.00476	0.27602	0.08915	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	234.477	234.477	0.00679	0.03810	0.37327	246.373
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06217	0.05269	0.05181	0.72620	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	229.933	229.933	0.00265	0.00948	0.01283	232.837
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01129	0.00432	0.29198	0.09057	0.00185	0.00529	0.07416	0.07945	0.00353	0.02030	0.02383	—	234.633	234.633	0.00670	0.03810	0.00966	246.162
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04453	0.03774	0.03679	0.53956	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	167.410	167.410	0.00189	0.00095	0.15289	167.893

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00827	0.00328	0.20635	0.06430	0.00133	0.00379	0.05018	0.05397	0.00253	0.01381	0.01634	—	167.989	167.989	0.00486	0.02729	0.11525	176.357
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00813	0.00689	0.00671	0.09847	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	27.7166	27.7166	0.00031	0.00016	0.02531	27.7965
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00151	0.00060	0.03766	0.01173	0.00024	0.00069	0.00916	0.00985	0.00046	0.00252	0.00298	—	27.8125	27.8125	0.00081	0.00452	0.01908	29.1980

3.11. Linear, Grubbing & Land Clearing (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44139	0.37089	3.94741	7.31174	0.01043	0.13077	—	0.13077	0.12031	—	0.12031	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03285	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.74600	8.74600	0.00084	0.00141	0.00820	9.19561
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44139	0.37089	3.94741	7.31174	0.01043	0.13077	—	0.13077	0.12031	—	0.12031	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03497	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.82458	8.82458	0.00084	0.00141	0.00021	9.26620
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31528	0.26492	2.81958	5.22267	0.00745	0.09341	—	0.09341	0.08594	—	0.08594	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02419	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.27073	6.27073	0.00060	0.00101	0.00254	6.58856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05754	0.04835	0.51457	0.95314	0.00136	0.01705	—	0.01705	0.01568	—	0.01568	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00441	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.03819	1.03819	0.00010	0.00017	0.00042	1.09081
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05357	0.05269	0.04189	0.85605	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	244.533	244.533	0.00220	0.00132	0.43509	245.417
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01173	0.00476	0.26843	0.08757	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	228.846	228.846	0.00670	0.03633	0.32787	240.169

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05225	0.05093	0.05137	0.68520	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	226.910	226.910	0.00265	0.00132	0.01127	227.382
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01129	0.00432	0.28440	0.08889	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	229.003	229.003	0.00670	0.03633	0.00852	240.006
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03669	0.03606	0.03055	0.50943	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	164.760	164.760	0.00189	0.00094	0.13414	165.223
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00825	0.00328	0.20037	0.06299	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	163.509	163.509	0.00479	0.02595	0.10142	171.463
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00670	0.00658	0.00558	0.09297	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	27.2778	27.2778	0.00031	0.00016	0.02221	27.3545
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00151	0.00060	0.03657	0.01150	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	27.0707	27.0707	0.00079	0.00430	0.01679	28.3877

3.12. Linear, Grubbing & Land Clearing (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44139	0.37089	3.94741	7.31174	0.01043	0.13077	—	0.13077	0.12031	—	0.12031	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00251	0.00154	0.03285	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.74600	8.74600	0.00084	0.00141	0.00820	9.19561
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44139	0.37089	3.94741	7.31174	0.01043	0.13077	—	0.13077	0.12031	—	0.12031	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03497	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.82458	8.82458	0.00084	0.00141	0.00021	9.26620
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31528	0.26492	2.81958	5.22267	0.00745	0.09341	—	0.09341	0.08594	—	0.08594	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02419	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.27073	6.27073	0.00060	0.00101	0.00254	6.58856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05754	0.04835	0.51457	0.95314	0.00136	0.01705	—	0.01705	0.01568	—	0.01568	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00441	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.03819	1.03819	0.00010	0.00017	0.00042	1.09081

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05357	0.05269	0.04189	0.85605	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	244.533	244.533	0.00220	0.00132	0.43509	245.417
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01173	0.00476	0.26843	0.08757	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	228.846	228.846	0.00670	0.03633	0.32787	240.169
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05225	0.05093	0.05137	0.68520	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	226.910	226.910	0.00265	0.00132	0.01127	227.382
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01129	0.00432	0.28440	0.08889	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	229.003	229.003	0.00670	0.03633	0.00852	240.006
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03669	0.03606	0.03055	0.50943	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	164.760	164.760	0.00189	0.00094	0.13414	165.223
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00825	0.00328	0.20037	0.06299	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	163.509	163.509	0.00479	0.02595	0.10142	171.463
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00670	0.00658	0.00558	0.09297	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	27.2778	27.2778	0.00031	0.00016	0.02221	27.3545
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00151	0.00060	0.03657	0.01150	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	27.0707	27.0707	0.00079	0.00430	0.01679	28.3877

3.13. Linear, Grubbing & Land Clearing (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.43017	0.36147	3.87701	7.30667	0.01043	0.12264	—	0.12264	0.11283	—	0.11283	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03254	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.59529	8.59529	0.00084	0.00141	0.00719	9.04389
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43017	0.36147	3.87701	7.30667	0.01043	0.12264	—	0.12264	0.11283	—	0.11283	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00137	0.03466	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.67466	8.67466	0.00079	0.00141	0.00019	9.11515
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30727	0.25819	2.76929	5.21905	0.00745	0.08760	—	0.08760	0.08059	—	0.08059	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02400	0.01710	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.16331	6.16331	0.00060	0.00101	0.00221	6.48081
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05608	0.04712	0.50540	0.95248	0.00136	0.01599	—	0.01599	0.01471	—	0.01471	—	133.556	133.556	0.00542	0.00108	—	134.014

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00438	0.00312	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.02041	1.02041	0.00010	0.00017	0.00037	1.07297
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05093	0.05004	0.03329	0.80954	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	241.509	241.509	0.00220	0.00132	0.37910	242.337
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01173	0.00476	0.26279	0.08422	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	223.807	223.807	0.00670	0.03633	0.28752	235.089
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04960	0.04828	0.04277	0.64463	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	224.102	224.102	0.00265	0.00132	0.00982	224.572
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01129	0.00441	0.27708	0.08554	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	223.965	223.965	0.00661	0.03633	0.00744	234.965
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03543	0.03480	0.03023	0.48108	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	162.726	162.726	0.00157	0.00094	0.11665	163.163
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00825	0.00328	0.19640	0.06053	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	159.909	159.909	0.00479	0.02595	0.08845	167.851
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00647	0.00635	0.00552	0.08780	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.9411	26.9411	0.00026	0.00016	0.01931	27.0136
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00151	0.00060	0.03584	0.01105	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	26.4748	26.4748	0.00079	0.00430	0.01464	27.7897

3.14. Linear, Grubbing & Land Clearing (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43017	0.36147	3.87701	7.30667	0.01043	0.12264	—	0.12264	0.11283	—	0.11283	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03254	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.59529	8.59529	0.00084	0.00141	0.00719	9.04389
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43017	0.36147	3.87701	7.30667	0.01043	0.12264	—	0.12264	0.11283	—	0.11283	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00137	0.03466	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.67466	8.67466	0.00079	0.00141	0.00019	9.11515
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30727	0.25819	2.76929	5.21905	0.00745	0.08760	—	0.08760	0.08059	—	0.08059	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00173	0.00104	0.02400	0.01710	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.16331	6.16331	0.00060	0.00101	0.00221	6.48081
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05608	0.04712	0.50540	0.95248	0.00136	0.01599	—	0.01599	0.01471	—	0.01471	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00438	0.00312	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.02041	1.02041	0.00010	0.00017	0.00037	1.07297
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05093	0.05004	0.03329	0.80954	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	241.509	241.509	0.00220	0.00132	0.37910	242.337
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01173	0.00476	0.26279	0.08422	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	223.807	223.807	0.00670	0.03633	0.28752	235.089
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04960	0.04828	0.04277	0.64463	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	224.102	224.102	0.00265	0.00132	0.00982	224.572
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01129	0.00441	0.27708	0.08554	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	223.965	223.965	0.00661	0.03633	0.00744	234.965
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03543	0.03480	0.03023	0.48108	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	162.726	162.726	0.00157	0.00094	0.11665	163.163
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00825	0.00328	0.19640	0.06053	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	159.909	159.909	0.00479	0.02595	0.08845	167.851
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00647	0.00635	0.00552	0.08780	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.9411	26.9411	0.00026	0.00016	0.01931	27.0136

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00151	0.00060	0.03584	0.01105	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	26.4748	26.4748	0.00079	0.00430	0.01464	27.7897

3.15. Linear, Grubbing & Land Clearing (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41847	0.35163	3.82845	7.30073	0.01043	0.11202	—	0.11202	0.10306	—	0.10306	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03223	0.02372	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.46346	8.46346	0.00075	0.00137	0.00620	8.89573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41847	0.35163	3.82845	7.30073	0.01043	0.11202	—	0.11202	0.10306	—	0.10306	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00225	0.00137	0.03439	0.02438	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.54357	8.54357	0.00075	0.00137	0.00016	8.96980
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.29890	0.25116	2.73461	5.21481	0.00745	0.08002	—	0.08002	0.07362	—	0.07362	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00170	0.00104	0.02378	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.06936	6.06936	0.00054	0.00098	0.00191	6.37560
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05455	0.04584	0.49907	0.95170	0.00136	0.01460	—	0.01460	0.01343	—	0.01343	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00434	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.00485	1.00485	0.00009	0.00016	0.00032	1.05555
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05004	0.04916	0.03329	0.77206	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	238.808	238.808	0.00176	0.00132	0.32894	239.575
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01173	0.00476	0.25715	0.08263	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	219.366	219.366	0.00485	0.03457	0.24817	230.037
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04872	0.04740	0.04277	0.61355	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	221.593	221.593	0.00220	0.00132	0.00852	222.051
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01120	0.00441	0.27152	0.08395	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	219.526	219.526	0.00485	0.03457	0.00643	229.955
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03480	0.03417	0.02992	0.45951	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	160.906	160.906	0.00157	0.00094	0.10165	161.328

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00819	0.00328	0.19237	0.05940	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	156.738	156.738	0.00346	0.02469	0.07656	164.259
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00635	0.00624	0.00546	0.08386	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.6398	26.6398	0.00026	0.00016	0.01683	26.7097
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00149	0.00060	0.03511	0.01084	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	25.9497	25.9497	0.00057	0.00409	0.01268	27.1950

3.16. Linear, Grubbing & Land Clearing (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41847	0.35163	3.82845	7.30073	0.01043	0.11202	—	0.11202	0.10306	—	0.10306	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03223	0.02372	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.46346	8.46346	0.00075	0.00137	0.00620	8.89573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41847	0.35163	3.82845	7.30073	0.01043	0.11202	—	0.11202	0.10306	—	0.10306	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00225	0.00137	0.03439	0.02438	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.54357	8.54357	0.00075	0.00137	0.00016	8.96980
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29890	0.25116	2.73461	5.21481	0.00745	0.08002	—	0.08002	0.07362	—	0.07362	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00170	0.00104	0.02378	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.06936	6.06936	0.00054	0.00098	0.00191	6.37560
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05455	0.04584	0.49907	0.95170	0.00136	0.01460	—	0.01460	0.01343	—	0.01343	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00434	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.00485	1.00485	0.00009	0.00016	0.00032	1.05555
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05004	0.04916	0.03329	0.77206	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	238.808	238.808	0.00176	0.00132	0.32894	239.575
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01173	0.00476	0.25715	0.08263	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	219.366	219.366	0.00485	0.03457	0.24817	230.037

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04872	0.04740	0.04277	0.61355	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	221.593	221.593	0.00220	0.00132	0.00852	222.051
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01120	0.00441	0.27152	0.08395	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	219.526	219.526	0.00485	0.03457	0.00643	229.955
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03480	0.03417	0.02992	0.45951	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	160.906	160.906	0.00157	0.00094	0.10165	161.328
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00819	0.00328	0.19237	0.05940	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	156.738	156.738	0.00346	0.02469	0.07656	164.259
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00635	0.00624	0.00546	0.08386	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.6398	26.6398	0.00026	0.00016	0.01683	26.7097
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00149	0.00060	0.03511	0.01084	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	25.9497	25.9497	0.00057	0.00409	0.01268	27.1950

3.17. Linear, Grubbing & Land Clearing (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40803	0.34285	3.75812	7.29659	0.01043	0.10080	—	0.10080	0.09273	—	0.09273	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00243	0.00154	0.03192	0.02377	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.34807	8.34807	0.00075	0.00132	0.00534	8.76633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40803	0.34285	3.75812	7.29659	0.01043	0.10080	—	0.10080	0.09273	—	0.09273	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03413	0.02443	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.42893	8.42893	0.00075	0.00137	0.00014	8.85514
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29225	0.24557	2.69173	5.22613	0.00747	0.07219	—	0.07219	0.06642	—	0.06642	—	808.894	808.894	0.03281	0.00656	—	811.670
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00104	0.02362	0.01724	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	6.00356	6.00356	0.00054	0.00098	0.00165	6.31038
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05333	0.04482	0.49124	0.95377	0.00136	0.01318	—	0.01318	0.01212	—	0.01212	—	133.922	133.922	0.00543	0.00109	—	134.381
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00431	0.00315	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.99396	0.99396	0.00009	0.00016	0.00027	1.04476

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04872	0.04784	0.03285	0.73458	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	236.412	236.412	0.00176	0.00132	0.28345	237.133
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00476	0.25150	0.08104	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	215.394	215.394	0.00485	0.03448	0.21362	226.004
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04740	0.04652	0.04233	0.58290	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	219.365	219.365	0.00220	0.00132	0.00735	219.822
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00944	0.00441	0.26764	0.08236	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	215.555	215.555	0.00485	0.03457	0.00555	225.984
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03395	0.03332	0.02416	0.43913	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	159.722	159.722	0.00158	0.00095	0.08772	160.132
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00695	0.00328	0.18885	0.05849	0.00133	0.00253	0.05018	0.05271	0.00253	0.01381	0.01634	—	154.323	154.323	0.00347	0.02476	0.06612	161.854
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00620	0.00608	0.00441	0.08014	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	26.4438	26.4438	0.00026	0.00016	0.01452	26.5116
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00127	0.00060	0.03447	0.01067	0.00024	0.00046	0.00916	0.00962	0.00046	0.00252	0.00298	—	25.5499	25.5499	0.00058	0.00410	0.01095	26.7968

3.18. Linear, Grubbing & Land Clearing (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.40803	0.34285	3.75812	7.29659	0.01043	0.10080	—	0.10080	0.09273	—	0.09273	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00154	0.03192	0.02377	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.34807	8.34807	0.00075	0.00132	0.00534	8.76633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40803	0.34285	3.75812	7.29659	0.01043	0.10080	—	0.10080	0.09273	—	0.09273	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03413	0.02443	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.42893	8.42893	0.00075	0.00137	0.00014	8.85514
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29225	0.24557	2.69173	5.22613	0.00747	0.07219	—	0.07219	0.06642	—	0.06642	—	808.894	808.894	0.03281	0.00656	—	811.670
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00104	0.02362	0.01724	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	6.00356	6.00356	0.00054	0.00098	0.00165	6.31038
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05333	0.04482	0.49124	0.95377	0.00136	0.01318	—	0.01318	0.01212	—	0.01212	—	133.922	133.922	0.00543	0.00109	—	134.381

Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00431	0.00315	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.99396	0.99396	0.00009	0.00016	0.00027	1.04476
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04872	0.04784	0.03285	0.73458	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	236.412	236.412	0.00176	0.00132	0.28345	237.133
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00476	0.25150	0.08104	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	215.394	215.394	0.00485	0.03448	0.21362	226.004
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04740	0.04652	0.04233	0.58290	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	219.365	219.365	0.00220	0.00132	0.00735	219.822
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00944	0.00441	0.26764	0.08236	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	215.555	215.555	0.00485	0.03457	0.00555	225.984
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03395	0.03332	0.02416	0.43913	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	159.722	159.722	0.00158	0.00095	0.08772	160.132
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00695	0.00328	0.18885	0.05849	0.00133	0.00253	0.05018	0.05271	0.00253	0.01381	0.01634	—	154.323	154.323	0.00347	0.02476	0.06612	161.854
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00620	0.00608	0.00441	0.08014	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	26.4438	26.4438	0.00026	0.00016	0.01452	26.5116
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00127	0.00060	0.03447	0.01067	0.00024	0.00046	0.00916	0.00962	0.00046	0.00252	0.00298	—	25.5499	25.5499	0.00058	0.00410	0.01095	26.7968

3.19. Linear, Grubbing & Land Clearing (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39864	0.33497	3.68200	7.29134	0.01043	0.09065	—	0.09065	0.08340	—	0.08340	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03170	0.02381	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25142	8.25142	0.00071	0.00132	0.00458	8.66782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39864	0.33497	3.68200	7.29134	0.01043	0.09065	—	0.09065	0.08340	—	0.08340	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03386	0.02452	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.33299	8.33299	0.00071	0.00137	0.00012	8.75807
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28474	0.23926	2.63000	5.20810	0.00745	0.06475	—	0.06475	0.05957	—	0.05957	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00167	0.00107	0.02340	0.01723	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.91834	5.91834	0.00050	0.00098	0.00141	6.22330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05197	0.04367	0.47998	0.95048	0.00136	0.01182	—	0.01182	0.01087	—	0.01087	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00427	0.00314	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97985	0.97985	0.00008	0.00016	0.00023	1.03034
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04696	0.04608	0.03285	0.70658	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	234.265	234.265	0.00176	0.00132	0.24379	234.947
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00485	0.24771	0.07945	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	212.029	212.029	0.00476	0.03448	0.18336	222.606
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04564	0.04475	0.03373	0.56130	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	217.362	217.362	0.00220	0.00132	0.00631	217.818
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00944	0.00441	0.26209	0.08087	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	212.192	212.192	0.00476	0.03457	0.00477	222.617
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03260	0.03197	0.02378	0.41699	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	157.838	157.838	0.00157	0.00094	0.07507	158.234
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00693	0.00334	0.18563	0.05719	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	151.498	151.498	0.00340	0.02469	0.05657	158.998
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00595	0.00583	0.00434	0.07610	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.1319	26.1319	0.00026	0.00016	0.01243	26.1975

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00126	0.00061	0.03388	0.01044	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	25.0822	25.0822	0.00056	0.00409	0.00937	26.3239

3.20. Linear, Grubbing & Land Clearing (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39864	0.33497	3.68200	7.29134	0.01043	0.09065	—	0.09065	0.08340	—	0.08340	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03170	0.02381	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25142	8.25142	0.00071	0.00132	0.00458	8.66782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39864	0.33497	3.68200	7.29134	0.01043	0.09065	—	0.09065	0.08340	—	0.08340	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03386	0.02452	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.33299	8.33299	0.00071	0.00137	0.00012	8.75807
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.28474	0.23926	2.63000	5.20810	0.00745	0.06475	—	0.06475	0.05957	—	0.05957	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02340	0.01723	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.91834	5.91834	0.00050	0.00098	0.00141	6.22330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05197	0.04367	0.47998	0.95048	0.00136	0.01182	—	0.01182	0.01087	—	0.01087	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00427	0.00314	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97985	0.97985	0.00008	0.00016	0.00023	1.03034
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04696	0.04608	0.03285	0.70658	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	234.265	234.265	0.00176	0.00132	0.24379	234.947
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00485	0.24771	0.07945	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	212.029	212.029	0.00476	0.03448	0.18336	222.606
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04564	0.04475	0.03373	0.56130	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	217.362	217.362	0.00220	0.00132	0.00631	217.818
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00944	0.00441	0.26209	0.08087	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	212.192	212.192	0.00476	0.03457	0.00477	222.617
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03260	0.03197	0.02378	0.41699	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	157.838	157.838	0.00157	0.00094	0.07507	158.234

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00693	0.00334	0.18563	0.05719	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	151.498	151.498	0.00340	0.02469	0.05657	158.998
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00595	0.00583	0.00434	0.07610	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.1319	26.1319	0.00026	0.00016	0.01243	26.1975
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00126	0.00061	0.03388	0.01044	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	25.0822	25.0822	0.00056	0.00409	0.00937	26.3239

3.21. Linear, Grubbing & Land Clearing (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38885	0.32675	3.59540	7.28453	0.01043	0.08215	—	0.08215	0.07558	—	0.07558	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03148	0.02390	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.16786	8.16786	0.00071	0.00128	0.00393	8.57048
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38885	0.32675	3.59540	7.28453	0.01043	0.08215	—	0.08215	0.07558	—	0.07558	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03373	0.02456	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25014	8.25014	0.00071	0.00132	0.00010	8.66206
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27775	0.23339	2.56814	5.20324	0.00745	0.05868	—	0.05868	0.05398	—	0.05398	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02327	0.01726	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.85888	5.85888	0.00050	0.00091	0.00121	6.14486
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05069	0.04259	0.46869	0.94959	0.00136	0.01071	—	0.01071	0.00985	—	0.00985	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00425	0.00315	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97000	0.97000	0.00008	0.00015	0.00020	1.01735
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04431	0.04387	0.03241	0.67858	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	232.366	232.366	0.00176	0.00132	0.20880	233.013
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00485	0.24392	0.07796	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	209.068	209.068	0.00476	0.03272	0.15738	219.094

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04431	0.04343	0.03373	0.54057	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	215.592	215.592	0.00220	0.00132	0.00540	216.046
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00944	0.00441	0.25847	0.07928	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	209.233	209.233	0.00476	0.03280	0.00409	219.132
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03134	0.03102	0.02378	0.40250	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	156.557	156.557	0.00126	0.00094	0.06432	156.934
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00693	0.00334	0.18298	0.05606	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	149.384	149.384	0.00340	0.02337	0.04846	156.481
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00572	0.00566	0.00434	0.07346	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	25.9197	25.9197	0.00021	0.00016	0.01065	25.9822
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00126	0.00061	0.03339	0.01023	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	24.7322	24.7322	0.00056	0.00387	0.00802	25.9073

3.22. Linear, Grubbing & Land Clearing (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38885	0.32675	3.59540	7.28453	0.01043	0.08215	—	0.08215	0.07558	—	0.07558	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00243	0.00159	0.03148	0.02390	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.16786	8.16786	0.00071	0.00128	0.00393	8.57048
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38885	0.32675	3.59540	7.28453	0.01043	0.08215	—	0.08215	0.07558	—	0.07558	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03373	0.02456	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25014	8.25014	0.00071	0.00132	0.00010	8.66206
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27775	0.23339	2.56814	5.20324	0.00745	0.05868	—	0.05868	0.05398	—	0.05398	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02327	0.01726	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.85888	5.85888	0.00050	0.00091	0.00121	6.14486
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05069	0.04259	0.46869	0.94959	0.00136	0.01071	—	0.01071	0.00985	—	0.00985	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00425	0.00315	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97000	0.97000	0.00008	0.00015	0.00020	1.01735

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04431	0.04387	0.03241	0.67858	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	232.366	232.366	0.00176	0.00132	0.20880	233.013
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00485	0.24392	0.07796	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	209.068	209.068	0.00476	0.03272	0.15738	219.094
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04431	0.04343	0.03373	0.54057	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	215.592	215.592	0.00220	0.00132	0.00540	216.046
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00944	0.00441	0.25847	0.07928	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	209.233	209.233	0.00476	0.03280	0.00409	219.132
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03134	0.03102	0.02378	0.40250	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	156.557	156.557	0.00126	0.00094	0.06432	156.934
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00693	0.00334	0.18298	0.05606	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	149.384	149.384	0.00340	0.02337	0.04846	156.481
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00572	0.00566	0.00434	0.07346	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	25.9197	25.9197	0.00021	0.00016	0.01065	25.9822
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00126	0.00061	0.03339	0.01023	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	24.7322	24.7322	0.00056	0.00387	0.00802	25.9073

3.23. Linear, Grubbing & Land Clearing (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.38091	0.32007	3.50392	7.27994	0.01043	0.07676	—	0.07676	0.07062	—	0.07062	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03126	0.02394	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.09837	8.09837	0.00066	0.00128	0.00337	8.49932
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38091	0.32007	3.50392	7.27994	0.01043	0.07676	—	0.07676	0.07062	—	0.07062	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03351	0.02460	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.18135	8.18135	0.00066	0.00132	0.00009	8.59216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27208	0.22862	2.50280	5.19996	0.00745	0.05483	—	0.05483	0.05044	—	0.05044	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01729	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.80943	5.80943	0.00047	0.00091	0.00104	6.09446
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04965	0.04172	0.45676	0.94899	0.00136	0.01001	—	0.01001	0.00921	—	0.00921	—	133.556	133.556	0.00542	0.00108	—	134.014

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00316	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.96182	0.96182	0.00008	0.00015	0.00017	1.00901
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04255	0.04211	0.02425	0.65918	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	230.706	230.706	0.00176	0.00132	0.17730	231.322
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00485	0.24013	0.07637	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	206.567	206.567	0.00467	0.03272	0.13468	216.568
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04211	0.04123	0.03329	0.51985	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	214.036	214.036	0.00176	0.00132	0.00461	214.479
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00935	0.00441	0.25468	0.07769	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	206.733	206.733	0.00467	0.03280	0.00351	216.629
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02976	0.02945	0.02346	0.38833	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	155.429	155.429	0.00126	0.00094	0.05482	155.797
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00687	0.00334	0.18028	0.05493	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	147.598	147.598	0.00334	0.02337	0.04161	154.687
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00543	0.00537	0.00428	0.07087	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	25.7330	25.7330	0.00021	0.00016	0.00908	25.7939
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00125	0.00061	0.03290	0.01002	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	24.4365	24.4365	0.00055	0.00387	0.00689	25.6101

3.24. Linear, Grubbing & Land Clearing (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38091	0.32007	3.50392	7.27994	0.01043	0.07676	—	0.07676	0.07062	—	0.07062	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03126	0.02394	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.09837	8.09837	0.00066	0.00128	0.00337	8.49932
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38091	0.32007	3.50392	7.27994	0.01043	0.07676	—	0.07676	0.07062	—	0.07062	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03351	0.02460	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.18135	8.18135	0.00066	0.00132	0.00009	8.59216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27208	0.22862	2.50280	5.19996	0.00745	0.05483	—	0.05483	0.05044	—	0.05044	—	806.684	806.684	0.03272	0.00654	—	809.452
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00164	0.00107	0.02312	0.01729	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.80943	5.80943	0.00047	0.00091	0.00104	6.09446
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04965	0.04172	0.45676	0.94899	0.00136	0.01001	—	0.01001	0.00921	—	0.00921	—	133.556	133.556	0.00542	0.00108	—	134.014
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00316	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.96182	0.96182	0.00008	0.00015	0.00017	1.00901
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04255	0.04211	0.02425	0.65918	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	230.706	230.706	0.00176	0.00132	0.17730	231.322
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00485	0.24013	0.07637	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	206.567	206.567	0.00467	0.03272	0.13468	216.568
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04211	0.04123	0.03329	0.51985	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	214.036	214.036	0.00176	0.00132	0.00461	214.479
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00935	0.00441	0.25468	0.07769	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	206.733	206.733	0.00467	0.03280	0.00351	216.629
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02976	0.02945	0.02346	0.38833	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	155.429	155.429	0.00126	0.00094	0.05482	155.797
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00687	0.00334	0.18028	0.05493	0.00132	0.00252	0.05005	0.05257	0.00252	0.01377	0.01629	—	147.598	147.598	0.00334	0.02337	0.04161	154.687
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00543	0.00537	0.00428	0.07087	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	25.7330	25.7330	0.00021	0.00016	0.00908	25.7939

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00125	0.00061	0.03290	0.01002	0.00024	0.00046	0.00913	0.00959	0.00046	0.00251	0.00297	—	24.4365	24.4365	0.00055	0.00387	0.00689	25.6101

3.25. Linear, Grubbing & Land Clearing (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37467	0.31483	3.44177	7.27809	0.01043	0.07255	—	0.07255	0.06675	—	0.06675	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03117	0.02399	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.03964	8.03964	0.00066	0.00128	0.00288	8.44010
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37467	0.31483	3.44177	7.27809	0.01043	0.07255	—	0.07255	0.06675	—	0.06675	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03342	0.02465	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.12337	8.12337	0.00066	0.00132	0.00008	8.53417
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.26836	0.22549	2.46514	5.21288	0.00747	0.05197	—	0.05197	0.04781	—	0.04781	—	808.894	808.894	0.03281	0.00656	—	811.670
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01737	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	5.78350	5.78350	0.00047	0.00092	0.00089	6.06916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04897	0.04115	0.44989	0.95135	0.00136	0.00948	—	0.00948	0.00873	—	0.00873	—	133.922	133.922	0.00543	0.00109	—	134.381
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00317	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.95753	0.95753	0.00008	0.00015	0.00015	1.00482
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04079	0.03175	0.02381	0.64066	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	229.255	229.255	0.00132	0.00132	0.15164	229.834
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00485	0.23828	0.07478	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	204.405	204.405	0.00467	0.03272	0.11526	214.387
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04079	0.03175	0.03329	0.50861	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	212.681	212.681	0.00176	0.00132	0.00392	213.123
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00935	0.00441	0.25283	0.07610	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	204.573	204.573	0.00467	0.03280	0.00300	214.468
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02858	0.02242	0.02353	0.38134	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	154.873	154.873	0.00126	0.00095	0.04679	155.233

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00688	0.00335	0.17944	0.05394	0.00133	0.00253	0.05018	0.05271	0.00253	0.01381	0.01634	—	146.454	146.454	0.00335	0.02343	0.03559	153.556
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00522	0.00409	0.00429	0.06959	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	25.6409	25.6409	0.00021	0.00016	0.00775	25.7007
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00126	0.00061	0.03275	0.00984	0.00024	0.00046	0.00916	0.00962	0.00046	0.00252	0.00298	—	24.2472	24.2472	0.00055	0.00388	0.00589	25.4230

3.26. Linear, Grubbing & Land Clearing (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37467	0.31483	3.44177	7.27809	0.01043	0.07255	—	0.07255	0.06675	—	0.06675	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03117	0.02399	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.03964	8.03964	0.00066	0.00128	0.00288	8.44010
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37467	0.31483	3.44177	7.27809	0.01043	0.07255	—	0.07255	0.06675	—	0.06675	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03342	0.02465	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.12337	8.12337	0.00066	0.00132	0.00008	8.53417
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26836	0.22549	2.46514	5.21288	0.00747	0.05197	—	0.05197	0.04781	—	0.04781	—	808.894	808.894	0.03281	0.00656	—	811.670
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01737	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	5.78350	5.78350	0.00047	0.00092	0.00089	6.06916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04897	0.04115	0.44989	0.95135	0.00136	0.00948	—	0.00948	0.00873	—	0.00873	—	133.922	133.922	0.00543	0.00109	—	134.381
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00317	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.95753	0.95753	0.00008	0.00015	0.00015	1.00482
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04079	0.03175	0.02381	0.64066	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	229.255	229.255	0.00132	0.00132	0.15164	229.834
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00988	0.00485	0.23828	0.07478	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	204.405	204.405	0.00467	0.03272	0.11526	214.387

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04079	0.03175	0.03329	0.50861	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	212.681	212.681	0.00176	0.00132	0.00392	213.123
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00935	0.00441	0.25283	0.07610	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	204.573	204.573	0.00467	0.03280	0.00300	214.468
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02858	0.02242	0.02353	0.38134	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	154.873	154.873	0.00126	0.00095	0.04679	155.233
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00688	0.00335	0.17944	0.05394	0.00133	0.00253	0.05018	0.05271	0.00253	0.01381	0.01634	—	146.454	146.454	0.00335	0.02343	0.03559	153.556
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00522	0.00409	0.00429	0.06959	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	25.6409	25.6409	0.00021	0.00016	0.00775	25.7007
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00126	0.00061	0.03275	0.00984	0.00024	0.00046	0.00916	0.00962	0.00046	0.00252	0.00298	—	24.2472	24.2472	0.00055	0.00388	0.00589	25.4230

3.27. Linear, Grubbing & Land Clearing (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37157	0.31222	3.40377	7.27707	0.01043	0.07008	—	0.07008	0.06447	—	0.06447	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00251	0.00168	0.03236	0.02526	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	7.99092	7.99092	0.00066	0.00128	0.00248	8.39098
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37157	0.31222	3.40377	7.27707	0.01043	0.07008	—	0.07008	0.06447	—	0.06447	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00141	0.03333	0.02478	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.07540	8.07540	0.00066	0.00132	0.00006	8.48619
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13016	0.10937	1.19232	2.54911	0.00365	0.02455	—	0.02455	0.02258	—	0.02258	—	395.607	395.607	0.01605	0.00321	—	396.964
Dust From Material Movement	—	—	—	—	—	—	0.04829	0.04829	—	0.00521	0.00521	—	—	—	—	—	—	—
Onsite truck	0.00080	0.00053	0.01124	0.00854	0.00003	0.00003	0.17972	0.17975	0.00003	0.01798	0.01801	—	2.81160	2.81160	0.00023	0.00045	0.00038	2.95125
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02375	0.01996	0.21760	0.46521	0.00067	0.00448	—	0.00448	0.00412	—	0.00412	—	65.4972	65.4972	0.00266	0.00053	—	65.7220
Dust From Material Movement	—	—	—	—	—	—	0.00881	0.00881	—	0.00095	0.00095	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00205	0.00156	0.00001	0.00001	0.03280	0.03281	0.00001	0.00328	0.00329	—	0.46549	0.46549	0.00004	0.00007	0.00006	0.48861

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03946	0.03042	0.02381	0.62214	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	227.928	227.928	0.00132	0.00132	0.12831	228.484
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01005	0.00503	0.24568	0.07901	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	202.565	202.565	0.00467	0.03272	0.09912	212.531
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03902	0.02998	0.03285	0.49736	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	211.442	211.442	0.00176	0.00132	0.00334	211.883
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00935	0.00450	0.25097	0.07637	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	202.734	202.734	0.00467	0.03280	0.00257	212.630
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01367	0.01066	0.00849	0.17986	0.00000	0.00000	0.08494	0.08494	0.00000	0.01981	0.01981	—	75.3043	75.3043	0.00062	0.00046	0.01945	75.4772
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00337	0.00164	0.08646	0.02647	0.00065	0.00124	0.02454	0.02578	0.00124	0.00675	0.00799	—	70.9822	70.9822	0.00164	0.01146	0.01502	74.4533
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00249	0.00194	0.00155	0.03282	0.00000	0.00000	0.01550	0.01550	0.00000	0.00361	0.00361	—	12.4675	12.4675	0.00010	0.00008	0.00322	12.4961
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00061	0.00030	0.01578	0.00483	0.00012	0.00023	0.00448	0.00470	0.00023	0.00123	0.00146	—	11.7519	11.7519	0.00027	0.00190	0.00249	12.3266

3.28. Linear, Grubbing & Land Clearing (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.37157	0.31222	3.40377	7.27707	0.01043	0.07008	—	0.07008	0.06447	—	0.06447	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03236	0.02526	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	7.99092	7.99092	0.00066	0.00128	0.00248	8.39098
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37157	0.31222	3.40377	7.27707	0.01043	0.07008	—	0.07008	0.06447	—	0.06447	—	1,129.36	1,129.36	0.04581	0.00916	—	1,133.23
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00141	0.03333	0.02478	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.07540	8.07540	0.00066	0.00132	0.00006	8.48619
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13016	0.10937	1.19232	2.54911	0.00365	0.02455	—	0.02455	0.02258	—	0.02258	—	395.607	395.607	0.01605	0.00321	—	396.964
Dust From Material Movement	—	—	—	—	—	—	0.04829	0.04829	—	0.00521	0.00521	—	—	—	—	—	—	—
Onsite truck	0.00080	0.00053	0.01124	0.00854	0.00003	0.00003	0.17972	0.17975	0.00003	0.01798	0.01801	—	2.81160	2.81160	0.00023	0.00045	0.00038	2.95125
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02375	0.01996	0.21760	0.46521	0.00067	0.00448	—	0.00448	0.00412	—	0.00412	—	65.4972	65.4972	0.00266	0.00053	—	65.7220

Dust From Material Movement	—	—	—	—	—	—	0.00881	0.00881	—	0.00095	0.00095	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00205	0.00156	0.00001	0.00001	0.03280	0.03281	0.00001	0.00328	0.00329	—	0.46549	0.46549	0.00004	0.00007	0.00006	0.48861
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03946	0.03042	0.02381	0.62214	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	227.928	227.928	0.00132	0.00132	0.12831	228.484
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01005	0.00503	0.24568	0.07901	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	202.565	202.565	0.00467	0.03272	0.09912	212.531
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03902	0.02998	0.03285	0.49736	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	211.442	211.442	0.00176	0.00132	0.00334	211.883
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00935	0.00450	0.25097	0.07637	0.00185	0.00353	0.07416	0.07769	0.00353	0.02030	0.02383	—	202.734	202.734	0.00467	0.03280	0.00257	212.630
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01367	0.01066	0.00849	0.17986	0.00000	0.00000	0.08494	0.08494	0.00000	0.01981	0.01981	—	75.3043	75.3043	0.00062	0.00046	0.01945	75.4772
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00337	0.00164	0.08646	0.02647	0.00065	0.00124	0.02454	0.02578	0.00124	0.00675	0.00799	—	70.9822	70.9822	0.00164	0.01146	0.01502	74.4533
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00249	0.00194	0.00155	0.03282	0.00000	0.00000	0.01550	0.01550	0.00000	0.00361	0.00361	—	12.4675	12.4675	0.00010	0.00008	0.00322	12.4961
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00061	0.00030	0.01578	0.00483	0.00012	0.00023	0.00448	0.00470	0.00023	0.00123	0.00146	—	11.7519	11.7519	0.00027	0.00190	0.00249	12.3266

3.29. Linear, Grading & Excavation (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79215	0.66562	5.04279	9.75131	0.01388	0.22127	—	0.22127	0.20357	—	0.20357	—	1,502.69	1,502.69	0.06096	0.01219	—	1,507.85
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00295	0.00159	0.04158	0.02496	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.0769	16.0769	0.00115	0.00256	0.02749	16.8952
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79215	0.66562	5.04279	9.75131	0.01388	0.22127	—	0.22127	0.20357	—	0.20357	—	1,502.69	1,502.69	0.06096	0.01219	—	1,507.85
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00273	0.00137	0.04405	0.02566	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.1517	16.1517	0.00115	0.00260	0.00071	16.9563
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56427	0.47414	3.59212	6.94614	0.00988	0.15762	—	0.15762	0.14501	—	0.14501	—	1,070.41	1,070.41	0.04342	0.00868	—	1,074.08
Dust From Material Movement	—	—	—	—	—	—	0.09821	0.09821	—	0.01060	0.01060	—	—	—	—	—	—	—

Onsite truck	0.00204	0.00107	0.03059	0.01800	0.00009	0.00019	0.73094	0.73113	0.00019	0.07311	0.07330	—	11.4744	11.4744	0.00082	0.00185	0.00845	12.0555
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10298	0.08653	0.65556	1.26767	0.00180	0.02877	—	0.02877	0.02646	—	0.02646	—	177.219	177.219	0.00719	0.00144	—	177.827
Dust From Material Movement	—	—	—	—	—	—	0.01792	0.01792	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00037	0.00019	0.00558	0.00328	0.00002	0.00003	0.13340	0.13343	0.00003	0.01334	0.01338	—	1.89972	1.89972	0.00014	0.00031	0.00140	1.99593
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16887	0.14991	0.13801	2.32191	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	528.851	528.851	0.00617	0.01896	1.58406	536.239
Vendor	0.00668	0.00383	0.13180	0.05258	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	119.617	119.617	0.00277	0.01690	0.26883	124.990
Hauling	0.07716	0.02381	1.55073	0.48766	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,303.04	1,303.04	0.04321	0.20812	2.74908	1,368.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14727	0.14374	0.15785	1.86070	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	490.621	490.621	0.00705	0.01896	0.04106	496.489
Vendor	0.00642	0.00356	0.13940	0.05318	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	119.704	119.704	0.00277	0.01690	0.00697	124.815
Hauling	0.07496	0.02161	1.63892	0.49472	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,303.79	1,303.79	0.04321	0.20856	0.07125	1,367.09
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10365	0.10113	0.11119	1.38165	0.00000	0.00000	0.34545	0.34545	0.00000	0.08055	0.08055	—	355.259	355.259	0.00503	0.01351	0.48691	359.896
Vendor	0.00464	0.00260	0.09778	0.03738	0.00064	0.00128	0.02289	0.02417	0.00128	0.00636	0.00764	—	85.2326	85.2326	0.00197	0.01204	0.08255	88.9511
Hauling	0.05434	0.01633	1.15394	0.34957	0.00660	0.01884	0.24955	0.26839	0.01884	0.06867	0.08751	—	928.418	928.418	0.03078	0.14856	0.84528	974.304
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01892	0.01846	0.02029	0.25215	0.00000	0.00000	0.06305	0.06305	0.00000	0.01470	0.01470	—	58.8171	58.8171	0.00083	0.00224	0.08061	59.5849

Vendor	0.00085	0.00047	0.01784	0.00682	0.00012	0.00023	0.00418	0.00441	0.00023	0.00116	0.00140	—	14.1112	14.1112	0.00033	0.00199	0.01367	14.7269
Hauling	0.00992	0.00298	0.21059	0.06380	0.00120	0.00344	0.04554	0.04898	0.00344	0.01253	0.01597	—	153.710	153.710	0.00510	0.02460	0.13995	161.307

3.30. Linear, Grading & Excavation (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79215	0.66562	5.04279	9.75131	0.01388	0.22127	—	0.22127	0.20357	—	0.20357	—	1,502.69	1,502.69	0.06096	0.01219	—	1,507.85
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00295	0.00159	0.04158	0.02496	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.0769	16.0769	0.00115	0.00256	0.02749	16.8952
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79215	0.66562	5.04279	9.75131	0.01388	0.22127	—	0.22127	0.20357	—	0.20357	—	1,502.69	1,502.69	0.06096	0.01219	—	1,507.85
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00273	0.00137	0.04405	0.02566	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.1517	16.1517	0.00115	0.00260	0.00071	16.9563
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.56427	0.47414	3.59212	6.94614	0.00988	0.15762	—	0.15762	0.14501	—	0.14501	—	1,070.41	1,070.41	0.04342	0.00868	—	1,074.08
Dust From Material Movement	—	—	—	—	—	—	0.09821	0.09821	—	0.01060	0.01060	—	—	—	—	—	—	—
Onsite truck	0.00204	0.00107	0.03059	0.01800	0.00009	0.00019	0.73094	0.73113	0.00019	0.07311	0.07330	—	11.4744	11.4744	0.00082	0.00185	0.00845	12.0555
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10298	0.08653	0.65556	1.26767	0.00180	0.02877	—	0.02877	0.02646	—	0.02646	—	177.219	177.219	0.00719	0.00144	—	177.827
Dust From Material Movement	—	—	—	—	—	—	0.01792	0.01792	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00037	0.00019	0.00558	0.00328	0.00002	0.00003	0.13340	0.13343	0.00003	0.01334	0.01338	—	1.89972	1.89972	0.00014	0.00031	0.00140	1.99593
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16887	0.14991	0.13801	2.32191	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	528.851	528.851	0.00617	0.01896	1.58406	536.239
Vendor	0.00668	0.00383	0.13180	0.05258	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	119.617	119.617	0.00277	0.01690	0.26883	124.990
Hauling	0.07716	0.02381	1.55073	0.48766	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,303.04	1,303.04	0.04321	0.20812	2.74908	1,368.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14727	0.14374	0.15785	1.86070	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	490.621	490.621	0.00705	0.01896	0.04106	496.489
Vendor	0.00642	0.00356	0.13940	0.05318	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	119.704	119.704	0.00277	0.01690	0.00697	124.815
Hauling	0.07496	0.02161	1.63892	0.49472	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,303.79	1,303.79	0.04321	0.20856	0.07125	1,367.09
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10365	0.10113	0.11119	1.38165	0.00000	0.00000	0.34545	0.34545	0.00000	0.08055	0.08055	—	355.259	355.259	0.00503	0.01351	0.48691	359.896

Vendor	0.00464	0.00260	0.09778	0.03738	0.00064	0.00128	0.02289	0.02417	0.00128	0.00636	0.00764	—	85.2326	85.2326	0.00197	0.01204	0.08255	88.9511
Hauling	0.05434	0.01633	1.15394	0.34957	0.00660	0.01884	0.24955	0.26839	0.01884	0.06867	0.08751	—	928.418	928.418	0.03078	0.14856	0.84528	974.304
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01892	0.01846	0.02029	0.25215	0.00000	0.00000	0.06305	0.06305	0.00000	0.01470	0.01470	—	58.8171	58.8171	0.00083	0.00224	0.08061	59.5849
Vendor	0.00085	0.00047	0.01784	0.00682	0.00012	0.00023	0.00418	0.00441	0.00023	0.00116	0.00140	—	14.1112	14.1112	0.00033	0.00199	0.01367	14.7269
Hauling	0.00992	0.00298	0.21059	0.06380	0.00120	0.00344	0.04554	0.04898	0.00344	0.01253	0.01597	—	153.710	153.710	0.00510	0.02460	0.13995	161.307

3.31. Linear, Grading & Excavation (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76108	0.63952	4.68963	9.77853	0.01388	0.19810	—	0.19810	0.18225	—	0.18225	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00287	0.00159	0.04079	0.02491	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.6952	15.6952	0.00115	0.00247	0.02522	16.4849
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76108	0.63952	4.68963	9.77853	0.01388	0.19810	—	0.19810	0.18225	—	0.18225	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00137	0.04317	0.02562	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.7706	15.7706	0.00115	0.00251	0.00065	16.5489
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54363	0.45680	3.34974	6.98467	0.00991	0.14150	—	0.14150	0.13018	—	0.13018	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00198	0.00107	0.03011	0.01801	0.00009	0.00019	0.73295	0.73314	0.00019	0.07332	0.07350	—	11.2335	11.2335	0.00082	0.00176	0.00777	11.7873
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09921	0.08337	0.61133	1.27470	0.00181	0.02582	—	0.02582	0.02376	—	0.02376	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00549	0.00329	0.00002	0.00003	0.13376	0.13380	0.00003	0.01338	0.01341	—	1.85983	1.85983	0.00014	0.00029	0.00129	1.95152
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14551	0.14374	0.12081	2.17552	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	519.616	519.616	0.00529	0.01896	1.41842	526.817
Vendor	0.00660	0.00284	0.12579	0.04961	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.342	116.342	0.00268	0.01690	0.24053	121.684
Hauling	0.06834	0.02381	1.50311	0.47928	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,269.41	1,269.41	0.04321	0.19930	2.52209	1,332.40

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14021	0.12125	0.13977	1.74077	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	482.094	482.094	0.00705	0.01896	0.03686	487.957
Vendor	0.00642	0.00266	0.13330	0.05120	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.431	116.431	0.00268	0.01690	0.00623	121.539
Hauling	0.06614	0.02161	1.58248	0.48634	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,270.15	1,270.15	0.04321	0.19974	0.06532	1,330.82
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10015	0.09826	0.09921	1.30104	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	350.041	350.041	0.00441	0.01354	0.43826	354.625
Vendor	0.00465	0.00197	0.09369	0.03594	0.00064	0.00128	0.02295	0.02424	0.00128	0.00638	0.00767	—	83.1280	83.1280	0.00191	0.01207	0.07396	86.8463
Hauling	0.04819	0.01638	1.12310	0.34455	0.00661	0.01890	0.25023	0.26913	0.01890	0.06886	0.08775	—	906.940	906.940	0.03086	0.14236	0.77734	950.911
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01828	0.01793	0.01811	0.23744	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	57.9533	57.9533	0.00073	0.00224	0.07256	58.7123
Vendor	0.00085	0.00036	0.01710	0.00656	0.00012	0.00023	0.00419	0.00442	0.00023	0.00116	0.00140	—	13.7628	13.7628	0.00032	0.00200	0.01224	14.3784
Hauling	0.00879	0.00299	0.20497	0.06288	0.00121	0.00345	0.04567	0.04912	0.00345	0.01257	0.01602	—	150.154	150.154	0.00511	0.02357	0.12870	157.434

3.32. Linear, Grading & Excavation (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76108	0.63952	4.68963	9.77853	0.01388	0.19810	—	0.19810	0.18225	—	0.18225	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00287	0.00159	0.04079	0.02491	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.6952	15.6952	0.00115	0.00247	0.02522	16.4849
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76108	0.63952	4.68963	9.77853	0.01388	0.19810	—	0.19810	0.18225	—	0.18225	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00137	0.04317	0.02562	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.7706	15.7706	0.00115	0.00251	0.00065	16.5489
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54363	0.45680	3.34974	6.98467	0.00991	0.14150	—	0.14150	0.13018	—	0.13018	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00198	0.00107	0.03011	0.01801	0.00009	0.00019	0.73295	0.73314	0.00019	0.07332	0.07350	—	11.2335	11.2335	0.00082	0.00176	0.00777	11.7873
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09921	0.08337	0.61133	1.27470	0.00181	0.02582	—	0.02582	0.02376	—	0.02376	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00549	0.00329	0.00002	0.00003	0.13376	0.13380	0.00003	0.01338	0.01341	—	1.85983	1.85983	0.00014	0.00029	0.00129	1.95152

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14551	0.14374	0.12081	2.17552	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	519.616	519.616	0.00529	0.01896	1.41842	526.817
Vendor	0.00660	0.00284	0.12579	0.04961	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.342	116.342	0.00268	0.01690	0.24053	121.684
Hauling	0.06834	0.02381	1.50311	0.47928	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,269.41	1,269.41	0.04321	0.19930	2.52209	1,332.40
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14021	0.12125	0.13977	1.74077	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	482.094	482.094	0.00705	0.01896	0.03686	487.957
Vendor	0.00642	0.00266	0.13330	0.05120	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.431	116.431	0.00268	0.01690	0.00623	121.539
Hauling	0.06614	0.02161	1.58248	0.48634	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,270.15	1,270.15	0.04321	0.19974	0.06532	1,330.82
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10015	0.09826	0.09921	1.30104	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	350.041	350.041	0.00441	0.01354	0.43826	354.625
Vendor	0.00465	0.00197	0.09369	0.03594	0.00064	0.00128	0.02295	0.02424	0.00128	0.00638	0.00767	—	83.1280	83.1280	0.00191	0.01207	0.07396	86.8463
Hauling	0.04819	0.01638	1.12310	0.34455	0.00661	0.01890	0.25023	0.26913	0.01890	0.06886	0.08775	—	906.940	906.940	0.03086	0.14236	0.77734	950.911
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01828	0.01793	0.01811	0.23744	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	57.9533	57.9533	0.00073	0.00224	0.07256	58.7123
Vendor	0.00085	0.00036	0.01710	0.00656	0.00012	0.00023	0.00419	0.00442	0.00023	0.00116	0.00140	—	13.7628	13.7628	0.00032	0.00200	0.01224	14.3784
Hauling	0.00879	0.00299	0.20497	0.06288	0.00121	0.00345	0.04567	0.04912	0.00345	0.01257	0.01602	—	150.154	150.154	0.00511	0.02357	0.12870	157.434

3.33. Linear, Grading & Excavation (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.72968	0.61313	4.46092	9.76176	0.01388	0.18569	—	0.18569	0.17084	—	0.17084	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.04004	0.02487	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3214	15.3214	0.00106	0.00247	0.02295	16.1066
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72968	0.61313	4.46092	9.76176	0.01388	0.18569	—	0.18569	0.17084	—	0.17084	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04246	0.02557	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3976	15.3976	0.00101	0.00247	0.00060	16.1593
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52120	0.43795	3.18637	6.97268	0.00991	0.13264	—	0.13264	0.12203	—	0.12203	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02957	0.01798	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.9667	10.9667	0.00072	0.00176	0.00708	11.5175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09512	0.07993	0.58151	1.27251	0.00181	0.02421	—	0.02421	0.02227	—	0.02227	—	177.681	177.681	0.00721	0.00144	—	178.291

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00540	0.00328	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.81566	1.81566	0.00012	0.00029	0.00117	1.90685
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13933	0.12125	0.10274	2.04545	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	510.911	510.911	0.00529	0.01896	1.26445	517.957
Vendor	0.00660	0.00284	0.12067	0.04854	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.843	112.843	0.00268	0.01600	0.21223	117.889
Hauling	0.06790	0.02381	1.45593	0.47091	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,236.09	1,236.09	0.03439	0.19930	2.29510	1,298.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13492	0.11596	0.12258	1.63803	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	474.045	474.045	0.00617	0.01896	0.03289	479.882
Vendor	0.00633	0.00266	0.12729	0.04995	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.934	112.934	0.00268	0.01600	0.00551	117.774
Hauling	0.06570	0.02161	1.53574	0.47796	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,236.85	1,236.85	0.03395	0.19930	0.05952	1,297.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09574	0.08220	0.08693	1.21727	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	344.202	344.202	0.00441	0.01354	0.38993	348.738
Vendor	0.00465	0.00197	0.09004	0.03517	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	80.6293	80.6293	0.00191	0.01143	0.06551	84.1477
Hauling	0.04787	0.01638	1.08940	0.33857	0.00661	0.01890	0.25023	0.26913	0.01260	0.06886	0.08146	—	883.149	883.149	0.02425	0.14236	0.70799	926.886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01747	0.01500	0.01586	0.22215	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	56.9866	56.9866	0.00073	0.00224	0.06456	57.7376
Vendor	0.00085	0.00036	0.01643	0.00642	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	13.3491	13.3491	0.00032	0.00189	0.01085	13.9316
Hauling	0.00874	0.00299	0.19882	0.06179	0.00121	0.00345	0.04567	0.04912	0.00230	0.01257	0.01487	—	146.215	146.215	0.00402	0.02357	0.11722	153.457

3.34. Linear, Grading & Excavation (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72968	0.61313	4.46092	9.76176	0.01388	0.18569	—	0.18569	0.17084	—	0.17084	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.04004	0.02487	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3214	15.3214	0.00106	0.00247	0.02295	16.1066
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72968	0.61313	4.46092	9.76176	0.01388	0.18569	—	0.18569	0.17084	—	0.17084	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04246	0.02557	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3976	15.3976	0.00101	0.00247	0.00060	16.1593
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52120	0.43795	3.18637	6.97268	0.00991	0.13264	—	0.13264	0.12203	—	0.12203	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00195	0.00107	0.02957	0.01798	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.9667	10.9667	0.00072	0.00176	0.00708	11.5175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09512	0.07993	0.58151	1.27251	0.00181	0.02421	—	0.02421	0.02227	—	0.02227	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00540	0.00328	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.81566	1.81566	0.00012	0.00029	0.00117	1.90685
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13933	0.12125	0.10274	2.04545	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	510.911	510.911	0.00529	0.01896	1.26445	517.957
Vendor	0.00660	0.00284	0.12067	0.04854	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.843	112.843	0.00268	0.01600	0.21223	117.889
Hauling	0.06790	0.02381	1.45593	0.47091	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,236.09	1,236.09	0.03439	0.19930	2.29510	1,298.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13492	0.11596	0.12258	1.63803	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	474.045	474.045	0.00617	0.01896	0.03289	479.882
Vendor	0.00633	0.00266	0.12729	0.04995	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.934	112.934	0.00268	0.01600	0.00551	117.774
Hauling	0.06570	0.02161	1.53574	0.47796	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,236.85	1,236.85	0.03395	0.19930	0.05952	1,297.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09574	0.08220	0.08693	1.21727	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	344.202	344.202	0.00441	0.01354	0.38993	348.738
Vendor	0.00465	0.00197	0.09004	0.03517	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	80.6293	80.6293	0.00191	0.01143	0.06551	84.1477
Hauling	0.04787	0.01638	1.08940	0.33857	0.00661	0.01890	0.25023	0.26913	0.01260	0.06886	0.08146	—	883.149	883.149	0.02425	0.14236	0.70799	926.886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01747	0.01500	0.01586	0.22215	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	56.9866	56.9866	0.00073	0.00224	0.06456	57.7376

Vendor	0.00085	0.00036	0.01643	0.00642	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	13.3491	13.3491	0.00032	0.00189	0.01085	13.9316
Hauling	0.00874	0.00299	0.19882	0.06179	0.00121	0.00345	0.04567	0.04912	0.00230	0.01257	0.01487	—	146.215	146.215	0.00402	0.02357	0.11722	153.457

3.35. Linear, Grading & Excavation (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70991	0.59652	4.27793	9.74565	0.01388	0.17740	—	0.17740	0.16321	—	0.16321	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.03937	0.02478	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.9587	14.9587	0.00101	0.00238	0.02081	15.7144
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70991	0.59652	4.27793	9.74565	0.01388	0.17740	—	0.17740	0.16321	—	0.16321	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04180	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.0357	15.0357	0.00101	0.00238	0.00054	15.7711
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.50708	0.42609	3.05567	6.96118	0.00991	0.12672	—	0.12672	0.11658	—	0.11658	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02913	0.01789	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.7079	10.7079	0.00072	0.00170	0.00640	11.2392
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09254	0.07776	0.55766	1.27041	0.00181	0.02313	—	0.02313	0.02128	—	0.02128	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00532	0.00326	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.77281	1.77281	0.00012	0.00028	0.00106	1.86078
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13404	0.11596	0.10185	1.91626	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	502.864	502.864	0.00529	0.00265	1.12214	504.907
Vendor	0.00570	0.00284	0.11556	0.04665	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.157	109.157	0.00268	0.01591	0.18522	114.150
Hauling	0.06790	0.02381	1.41757	0.45415	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,203.41	1,203.41	0.03395	0.19048	2.08072	1,263.11
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12963	0.11067	0.12170	1.53530	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	466.608	466.608	0.00617	0.01896	0.02916	472.441
Vendor	0.00543	0.00266	0.12217	0.04797	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.250	109.250	0.00268	0.01600	0.00480	114.089
Hauling	0.06570	0.02161	1.49738	0.46077	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,204.18	1,204.18	0.03395	0.19048	0.05385	1,261.85
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09196	0.07842	0.08567	1.14577	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	338.800	338.800	0.00378	0.01354	0.34661	343.277

Vendor	0.00401	0.00197	0.08638	0.03376	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	77.9974	77.9974	0.00191	0.01143	0.05706	81.5073
Hauling	0.04787	0.01638	1.06231	0.32628	0.00661	0.01890	0.25023	0.26913	0.01260	0.06886	0.08146	—	859.813	859.813	0.02425	0.13606	0.64043	901.604
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01678	0.01431	0.01563	0.20910	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	56.0922	56.0922	0.00063	0.00224	0.05738	56.8334
Vendor	0.00073	0.00036	0.01576	0.00616	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	12.9134	12.9134	0.00032	0.00189	0.00945	13.4945
Hauling	0.00874	0.00299	0.19387	0.05955	0.00121	0.00345	0.04567	0.04912	0.00230	0.01257	0.01487	—	142.352	142.352	0.00402	0.02253	0.10603	149.271

3.36. Linear, Grading & Excavation (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70991	0.59652	4.27793	9.74565	0.01388	0.17740	—	0.17740	0.16321	—	0.16321	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.03937	0.02478	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.9587	14.9587	0.00101	0.00238	0.02081	15.7144
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70991	0.59652	4.27793	9.74565	0.01388	0.17740	—	0.17740	0.16321	—	0.16321	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04180	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.0357	15.0357	0.00101	0.00238	0.00054	15.7711
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50708	0.42609	3.05567	6.96118	0.00991	0.12672	—	0.12672	0.11658	—	0.11658	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02913	0.01789	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.7079	10.7079	0.00072	0.00170	0.00640	11.2392
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09254	0.07776	0.55766	1.27041	0.00181	0.02313	—	0.02313	0.02128	—	0.02128	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00532	0.00326	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.77281	1.77281	0.00012	0.00028	0.00106	1.86078
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13404	0.11596	0.10185	1.91626	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	502.864	502.864	0.00529	0.00265	1.12214	504.907
Vendor	0.00570	0.00284	0.11556	0.04665	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.157	109.157	0.00268	0.01591	0.18522	114.150
Hauling	0.06790	0.02381	1.41757	0.45415	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,203.41	1,203.41	0.03395	0.19048	2.08072	1,263.11

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12963	0.11067	0.12170	1.53530	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	466.608	466.608	0.00617	0.01896	0.02916	472.441
Vendor	0.00543	0.00266	0.12217	0.04797	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.250	109.250	0.00268	0.01600	0.00480	114.089
Hauling	0.06570	0.02161	1.49738	0.46077	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,204.18	1,204.18	0.03395	0.19048	0.05385	1,261.85
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09196	0.07842	0.08567	1.14577	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	338.800	338.800	0.00378	0.01354	0.34661	343.277
Vendor	0.00401	0.00197	0.08638	0.03376	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	77.9974	77.9974	0.00191	0.01143	0.05706	81.5073
Hauling	0.04787	0.01638	1.06231	0.32628	0.00661	0.01890	0.25023	0.26913	0.01260	0.06886	0.08146	—	859.813	859.813	0.02425	0.13606	0.64043	901.604
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01678	0.01431	0.01563	0.20910	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	56.0922	56.0922	0.00063	0.00224	0.05738	56.8334
Vendor	0.00073	0.00036	0.01576	0.00616	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	12.9134	12.9134	0.00032	0.00189	0.00945	13.4945
Hauling	0.00874	0.00299	0.19387	0.05955	0.00121	0.00345	0.04567	0.04912	0.00230	0.01257	0.01487	—	142.352	142.352	0.00402	0.02253	0.10603	149.271

3.37. Linear, Grading & Excavation (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68900	0.57895	4.10747	9.73497	0.01388	0.16679	—	0.16679	0.15344	—	0.15344	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00269	0.00159	0.03880	0.02474	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6170	14.6170	0.00101	0.00238	0.01866	15.3705
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68900	0.57895	4.10747	9.73497	0.01388	0.16679	—	0.16679	0.15344	—	0.15344	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04123	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6947	14.6947	0.00097	0.00238	0.00048	15.4290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49349	0.41467	2.94194	6.97260	0.00994	0.11946	—	0.11946	0.10990	—	0.10990	—	1,076.15	1,076.15	0.04365	0.00873	—	1,079.84
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02871	0.01794	0.00009	0.00019	0.73496	0.73515	0.00013	0.07352	0.07364	—	10.4927	10.4927	0.00073	0.00171	0.00576	11.0248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09006	0.07568	0.53690	1.27250	0.00181	0.02180	—	0.02180	0.02006	—	0.02006	—	178.168	178.168	0.00723	0.00145	—	178.780
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00524	0.00327	0.00002	0.00003	0.13413	0.13416	0.00002	0.01342	0.01344	—	1.73718	1.73718	0.00012	0.00028	0.00095	1.82528

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12787	0.10979	0.08466	1.80515	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	495.577	495.577	0.00441	0.00265	0.98916	497.465
Vendor	0.00570	0.00284	0.11134	0.04557	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.533	105.533	0.00268	0.01501	0.15950	110.233
Hauling	0.05864	0.02381	1.38009	0.44577	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,172.39	1,172.39	0.03395	0.19048	1.86635	1,231.86
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12434	0.10538	0.10362	1.45241	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	459.866	459.866	0.00529	0.01896	0.02566	465.674
Vendor	0.00543	0.00266	0.11813	0.04600	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.629	105.629	0.00268	0.01510	0.00413	110.199
Hauling	0.05644	0.02161	1.45990	0.45283	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,173.16	1,173.16	0.03351	0.19048	0.04830	1,230.81
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08906	0.07548	0.07358	1.07912	0.00000	0.00000	0.34735	0.34735	0.00000	0.08100	0.08100	—	334.820	334.820	0.00379	0.00189	0.30578	335.785
Vendor	0.00402	0.00197	0.08302	0.03308	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	75.6163	75.6163	0.00192	0.01075	0.04920	78.9170
Hauling	0.04137	0.01642	1.03175	0.32149	0.00663	0.01895	0.25092	0.26987	0.01263	0.06905	0.08168	—	839.946	839.946	0.02432	0.13643	0.57625	881.786
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01625	0.01377	0.01343	0.19694	0.00000	0.00000	0.06339	0.06339	0.00000	0.01478	0.01478	—	55.4333	55.4333	0.00063	0.00031	0.05063	55.5931
Vendor	0.00073	0.00036	0.01515	0.00604	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	12.5191	12.5191	0.00032	0.00178	0.00814	13.0656
Hauling	0.00755	0.00300	0.18829	0.05867	0.00121	0.00346	0.04579	0.04925	0.00231	0.01260	0.01491	—	139.063	139.063	0.00403	0.02259	0.09540	145.990

3.38. Linear, Grading & Excavation (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.68900	0.57895	4.10747	9.73497	0.01388	0.16679	—	0.16679	0.15344	—	0.15344	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03880	0.02474	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6170	14.6170	0.00101	0.00238	0.01866	15.3705
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68900	0.57895	4.10747	9.73497	0.01388	0.16679	—	0.16679	0.15344	—	0.15344	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04123	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6947	14.6947	0.00097	0.00238	0.00048	15.4290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49349	0.41467	2.94194	6.97260	0.00994	0.11946	—	0.11946	0.10990	—	0.10990	—	1,076.15	1,076.15	0.04365	0.00873	—	1,079.84
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02871	0.01794	0.00009	0.00019	0.73496	0.73515	0.00013	0.07352	0.07364	—	10.4927	10.4927	0.00073	0.00171	0.00576	11.0248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09006	0.07568	0.53690	1.27250	0.00181	0.02180	—	0.02180	0.02006	—	0.02006	—	178.168	178.168	0.00723	0.00145	—	178.780

Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00524	0.00327	0.00002	0.00003	0.13413	0.13416	0.00002	0.01342	0.01344	—	1.73718	1.73718	0.00012	0.00028	0.00095	1.82528
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12787	0.10979	0.08466	1.80515	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	495.577	495.577	0.00441	0.00265	0.98916	497.465
Vendor	0.00570	0.00284	0.11134	0.04557	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.533	105.533	0.00268	0.01501	0.15950	110.233
Hauling	0.05864	0.02381	1.38009	0.44577	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,172.39	1,172.39	0.03395	0.19048	1.86635	1,231.86
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12434	0.10538	0.10362	1.45241	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	459.866	459.866	0.00529	0.01896	0.02566	465.674
Vendor	0.00543	0.00266	0.11813	0.04600	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.629	105.629	0.00268	0.01510	0.00413	110.199
Hauling	0.05644	0.02161	1.45990	0.45283	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,173.16	1,173.16	0.03351	0.19048	0.04830	1,230.81
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08906	0.07548	0.07358	1.07912	0.00000	0.00000	0.34735	0.34735	0.00000	0.08100	0.08100	—	334.820	334.820	0.00379	0.00189	0.30578	335.785
Vendor	0.00402	0.00197	0.08302	0.03308	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	75.6163	75.6163	0.00192	0.01075	0.04920	78.9170
Hauling	0.04137	0.01642	1.03175	0.32149	0.00663	0.01895	0.25092	0.26987	0.01263	0.06905	0.08168	—	839.946	839.946	0.02432	0.13643	0.57625	881.786
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01625	0.01377	0.01343	0.19694	0.00000	0.00000	0.06339	0.06339	0.00000	0.01478	0.01478	—	55.4333	55.4333	0.00063	0.00031	0.05063	55.5931
Vendor	0.00073	0.00036	0.01515	0.00604	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	12.5191	12.5191	0.00032	0.00178	0.00814	13.0656
Hauling	0.00755	0.00300	0.18829	0.05867	0.00121	0.00346	0.04579	0.04925	0.00231	0.01260	0.01491	—	139.063	139.063	0.00403	0.02259	0.09540	145.990

3.39. Linear, Grading & Excavation (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67252	0.56510	3.98192	9.72382	0.01388	0.15431	—	0.15431	0.14197	—	0.14197	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03818	0.02474	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3080	14.3080	0.00097	0.00229	0.01639	15.0319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67252	0.56510	3.98192	9.72382	0.01388	0.15431	—	0.15431	0.14197	—	0.14197	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04061	0.02540	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3865	14.3865	0.00097	0.00229	0.00043	15.0945
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48037	0.40364	2.84423	6.94558	0.00991	0.11022	—	0.11022	0.10140	—	0.10140	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00186	0.00107	0.02819	0.01789	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.2436	10.2436	0.00069	0.00164	0.00507	10.7540
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08767	0.07366	0.51907	1.26757	0.00181	0.02012	—	0.02012	0.01851	—	0.01851	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00514	0.00326	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.69594	1.69594	0.00011	0.00027	0.00084	1.78045
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10714	0.10538	0.08378	1.71211	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	489.066	489.066	0.00441	0.00265	0.87018	490.835
Vendor	0.00561	0.00275	0.10730	0.04369	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.042	102.042	0.00268	0.01501	0.13634	106.719
Hauling	0.05864	0.02381	1.34217	0.43784	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,144.23	1,144.23	0.03351	0.18166	1.63936	1,200.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10450	0.10185	0.10274	1.37039	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	453.820	453.820	0.00529	0.00265	0.02254	454.763
Vendor	0.00543	0.00266	0.11311	0.04501	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.139	102.139	0.00268	0.01501	0.00354	106.683
Hauling	0.05644	0.02161	1.42198	0.44445	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,145.02	1,145.02	0.03351	0.18166	0.04262	1,200.03
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07338	0.07212	0.06110	1.01885	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	329.519	329.519	0.00378	0.00189	0.26829	330.445
Vendor	0.00394	0.00197	0.07985	0.03165	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	72.9167	72.9167	0.00191	0.01072	0.04199	76.2013
Hauling	0.04126	0.01638	1.00184	0.31495	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	817.544	817.544	0.02394	0.12976	0.50712	857.317
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01339	0.01316	0.01115	0.18594	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	54.5557	54.5557	0.00063	0.00031	0.04442	54.7090

Vendor	0.00072	0.00036	0.01457	0.00578	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	12.0722	12.0722	0.00032	0.00177	0.00695	12.6160
Hauling	0.00753	0.00299	0.18284	0.05748	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	135.354	135.354	0.00396	0.02148	0.08396	141.939

3.40. Linear, Grading & Excavation (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67252	0.56510	3.98192	9.72382	0.01388	0.15431	—	0.15431	0.14197	—	0.14197	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03818	0.02474	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3080	14.3080	0.00097	0.00229	0.01639	15.0319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67252	0.56510	3.98192	9.72382	0.01388	0.15431	—	0.15431	0.14197	—	0.14197	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04061	0.02540	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3865	14.3865	0.00097	0.00229	0.00043	15.0945
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.48037	0.40364	2.84423	6.94558	0.00991	0.11022	—	0.11022	0.10140	—	0.10140	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02819	0.01789	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.2436	10.2436	0.00069	0.00164	0.00507	10.7540
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08767	0.07366	0.51907	1.26757	0.00181	0.02012	—	0.02012	0.01851	—	0.01851	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00514	0.00326	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.69594	1.69594	0.00011	0.00027	0.00084	1.78045
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10714	0.10538	0.08378	1.71211	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	489.066	489.066	0.00441	0.00265	0.87018	490.835
Vendor	0.00561	0.00275	0.10730	0.04369	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.042	102.042	0.00268	0.01501	0.13634	106.719
Hauling	0.05864	0.02381	1.34217	0.43784	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,144.23	1,144.23	0.03351	0.18166	1.63936	1,200.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10450	0.10185	0.10274	1.37039	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	453.820	453.820	0.00529	0.00265	0.02254	454.763
Vendor	0.00543	0.00266	0.11311	0.04501	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.139	102.139	0.00268	0.01501	0.00354	106.683
Hauling	0.05644	0.02161	1.42198	0.44445	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,145.02	1,145.02	0.03351	0.18166	0.04262	1,200.03
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07338	0.07212	0.06110	1.01885	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	329.519	329.519	0.00378	0.00189	0.26829	330.445

Vendor	0.00394	0.00197	0.07985	0.03165	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	72.9167	72.9167	0.00191	0.01072	0.04199	76.2013
Hauling	0.04126	0.01638	1.00184	0.31495	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	817.544	817.544	0.02394	0.12976	0.50712	857.317
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01339	0.01316	0.01115	0.18594	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	54.5557	54.5557	0.00063	0.00031	0.04442	54.7090
Vendor	0.00072	0.00036	0.01457	0.00578	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	12.0722	12.0722	0.00032	0.00177	0.00695	12.6160
Hauling	0.00753	0.00299	0.18284	0.05748	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	135.354	135.354	0.00396	0.02148	0.08396	141.939

3.41. Linear, Grading & Excavation (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65670	0.55181	3.86529	9.71521	0.01388	0.14463	—	0.14463	0.13306	—	0.13306	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03774	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.0326	14.0326	0.00097	0.00229	0.01438	14.7544
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65670	0.55181	3.86529	9.71521	0.01388	0.14463	—	0.14463	0.13306	—	0.13306	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00141	0.04012	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.1119	14.1119	0.00093	0.00229	0.00037	14.8187
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46907	0.39415	2.76092	6.93943	0.00991	0.10331	—	0.10331	0.09504	—	0.09504	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02790	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.0471	10.0471	0.00069	0.00164	0.00442	10.5568
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08561	0.07193	0.50387	1.26645	0.00181	0.01885	—	0.01885	0.01735	—	0.01735	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00509	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.66341	1.66341	0.00011	0.00027	0.00073	1.74781
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10185	0.10009	0.06658	1.61907	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	483.018	483.018	0.00441	0.00265	0.75820	484.675
Vendor	0.00552	0.00275	0.10408	0.04270	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.7064	98.7064	0.00259	0.01411	0.11576	103.092
Hauling	0.05864	0.02381	1.31396	0.42108	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,119.03	1,119.03	0.03351	0.18166	1.43759	1,175.44

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09921	0.09656	0.08554	1.28926	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	448.205	448.205	0.00529	0.00265	0.01964	449.145
Vendor	0.00543	0.00257	0.10997	0.04402	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.8050	98.8050	0.00259	0.01411	0.00301	103.077
Hauling	0.05644	0.02205	1.38538	0.42770	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,119.83	1,119.83	0.03307	0.18166	0.03720	1,174.83
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07086	0.06960	0.06047	0.96216	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	325.452	325.452	0.00315	0.00189	0.23329	326.327
Vendor	0.00394	0.00190	0.07760	0.03088	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	70.5342	70.5342	0.00185	0.01008	0.03574	73.6195
Hauling	0.04126	0.01638	0.98200	0.30266	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	799.547	799.547	0.02394	0.12976	0.44227	839.256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01293	0.01270	0.01104	0.17559	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	53.8822	53.8822	0.00052	0.00031	0.03862	54.0271
Vendor	0.00072	0.00035	0.01416	0.00564	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.6777	11.6777	0.00031	0.00167	0.00592	12.1886
Hauling	0.00753	0.00299	0.17922	0.05524	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	132.374	132.374	0.00396	0.02148	0.07322	138.948

3.42. Linear, Grading & Excavation (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65670	0.55181	3.86529	9.71521	0.01388	0.14463	—	0.14463	0.13306	—	0.13306	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00269	0.00159	0.03774	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.0326	14.0326	0.00097	0.00229	0.01438	14.7544
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65670	0.55181	3.86529	9.71521	0.01388	0.14463	—	0.14463	0.13306	—	0.13306	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00141	0.04012	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.1119	14.1119	0.00093	0.00229	0.00037	14.8187
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46907	0.39415	2.76092	6.93943	0.00991	0.10331	—	0.10331	0.09504	—	0.09504	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02790	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.0471	10.0471	0.00069	0.00164	0.00442	10.5568
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08561	0.07193	0.50387	1.26645	0.00181	0.01885	—	0.01885	0.01735	—	0.01735	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00509	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.66341	1.66341	0.00011	0.00027	0.00073	1.74781

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10185	0.10009	0.06658	1.61907	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	483.018	483.018	0.00441	0.00265	0.75820	484.675
Vendor	0.00552	0.00275	0.10408	0.04270	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.7064	98.7064	0.00259	0.01411	0.11576	103.092
Hauling	0.05864	0.02381	1.31396	0.42108	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,119.03	1,119.03	0.03351	0.18166	1.43759	1,175.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09921	0.09656	0.08554	1.28926	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	448.205	448.205	0.00529	0.00265	0.01964	449.145
Vendor	0.00543	0.00257	0.10997	0.04402	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.8050	98.8050	0.00259	0.01411	0.00301	103.077
Hauling	0.05644	0.02205	1.38538	0.42770	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,119.83	1,119.83	0.03307	0.18166	0.03720	1,174.83
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07086	0.06960	0.06047	0.96216	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	325.452	325.452	0.00315	0.00189	0.23329	326.327
Vendor	0.00394	0.00190	0.07760	0.03088	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	70.5342	70.5342	0.00185	0.01008	0.03574	73.6195
Hauling	0.04126	0.01638	0.98200	0.30266	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	799.547	799.547	0.02394	0.12976	0.44227	839.256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01293	0.01270	0.01104	0.17559	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	53.8822	53.8822	0.00052	0.00031	0.03862	54.0271
Vendor	0.00072	0.00035	0.01416	0.00564	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.6777	11.6777	0.00031	0.00167	0.00592	12.1886
Hauling	0.00753	0.00299	0.17922	0.05524	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	132.374	132.374	0.00396	0.02148	0.07322	138.948

3.43. Linear, Grading & Excavation (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.64319	0.54046	3.77124	9.71024	0.01388	0.13410	—	0.13410	0.12337	—	0.12337	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03730	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.7908	13.7908	0.00084	0.00220	0.01241	14.4811
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64319	0.54046	3.77124	9.71024	0.01388	0.13410	—	0.13410	0.12337	—	0.12337	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00141	0.03973	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.8709	13.8709	0.00084	0.00220	0.00032	14.5492
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45942	0.38604	2.69374	6.93588	0.00991	0.09579	—	0.09579	0.08812	—	0.08812	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00107	0.02759	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.87460	9.87460	0.00060	0.00157	0.00383	10.3627
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08384	0.07045	0.49161	1.26580	0.00181	0.01748	—	0.01748	0.01608	—	0.01608	—	177.681	177.681	0.00721	0.00144	—	178.291

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00020	0.00504	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.63485	1.63485	0.00010	0.00026	0.00063	1.71566
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10009	0.09833	0.06658	1.54412	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	477.616	477.616	0.00353	0.00265	0.65789	479.150
Vendor	0.00552	0.00275	0.10004	0.04171	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.5563	95.5563	0.00259	0.01411	0.09763	99.9234
Hauling	0.05864	0.02381	1.28574	0.41315	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,096.83	1,096.83	0.02425	0.17284	1.24087	1,150.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09744	0.09480	0.08554	1.22709	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	443.187	443.187	0.00441	0.00265	0.01703	444.103
Vendor	0.00543	0.00257	0.10683	0.04295	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.6562	95.6562	0.00259	0.01411	0.00253	99.9283
Hauling	0.05600	0.02205	1.35761	0.41976	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,097.63	1,097.63	0.02425	0.17284	0.03216	1,149.78
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06960	0.06834	0.05984	0.91901	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	321.811	321.811	0.00315	0.00189	0.20330	322.656
Vendor	0.00388	0.00190	0.07472	0.03017	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	68.2845	68.2845	0.00185	0.01008	0.03014	71.3643
Hauling	0.04094	0.01638	0.96185	0.29699	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	783.689	783.689	0.01732	0.12346	0.38282	821.296
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01270	0.01247	0.01092	0.16772	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	53.2795	53.2795	0.00052	0.00031	0.03366	53.4195
Vendor	0.00071	0.00035	0.01364	0.00551	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.3053	11.3053	0.00031	0.00167	0.00499	11.8152
Hauling	0.00747	0.00299	0.17554	0.05420	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	129.749	129.749	0.00287	0.02044	0.06338	135.975

3.44. Linear, Grading & Excavation (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64319	0.54046	3.77124	9.71024	0.01388	0.13410	—	0.13410	0.12337	—	0.12337	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03730	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.7908	13.7908	0.00084	0.00220	0.01241	14.4811
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64319	0.54046	3.77124	9.71024	0.01388	0.13410	—	0.13410	0.12337	—	0.12337	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00141	0.03973	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.8709	13.8709	0.00084	0.00220	0.00032	14.5492
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45942	0.38604	2.69374	6.93588	0.00991	0.09579	—	0.09579	0.08812	—	0.08812	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00183	0.00107	0.02759	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.87460	9.87460	0.00060	0.00157	0.00383	10.3627
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08384	0.07045	0.49161	1.26580	0.00181	0.01748	—	0.01748	0.01608	—	0.01608	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00020	0.00504	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.63485	1.63485	0.00010	0.00026	0.00063	1.71566
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10009	0.09833	0.06658	1.54412	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	477.616	477.616	0.00353	0.00265	0.65789	479.150
Vendor	0.00552	0.00275	0.10004	0.04171	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.5563	95.5563	0.00259	0.01411	0.09763	99.9234
Hauling	0.05864	0.02381	1.28574	0.41315	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,096.83	1,096.83	0.02425	0.17284	1.24087	1,150.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09744	0.09480	0.08554	1.22709	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	443.187	443.187	0.00441	0.00265	0.01703	444.103
Vendor	0.00543	0.00257	0.10683	0.04295	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.6562	95.6562	0.00259	0.01411	0.00253	99.9283
Hauling	0.05600	0.02205	1.35761	0.41976	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,097.63	1,097.63	0.02425	0.17284	0.03216	1,149.78
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06960	0.06834	0.05984	0.91901	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	321.811	321.811	0.00315	0.00189	0.20330	322.656
Vendor	0.00388	0.00190	0.07472	0.03017	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	68.2845	68.2845	0.00185	0.01008	0.03014	71.3643
Hauling	0.04094	0.01638	0.96185	0.29699	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	783.689	783.689	0.01732	0.12346	0.38282	821.296
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01270	0.01247	0.01092	0.16772	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	53.2795	53.2795	0.00052	0.00031	0.03366	53.4195

Vendor	0.00071	0.00035	0.01364	0.00551	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.3053	11.3053	0.00031	0.00167	0.00499	11.8152
Hauling	0.00747	0.00299	0.17554	0.05420	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	129.749	129.749	0.00287	0.02044	0.06338	135.975

3.45. Linear, Grading & Excavation (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62858	0.52818	3.62206	9.70610	0.01388	0.12414	—	0.12414	0.11421	—	0.11421	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00159	0.03686	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.5769	13.5769	0.00084	0.00216	0.01068	14.2524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62858	0.52818	3.62206	9.70610	0.01388	0.12414	—	0.12414	0.11421	—	0.11421	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03937	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.6578	13.6578	0.00084	0.00220	0.00028	14.3360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.45022	0.37831	2.59427	6.95192	0.00994	0.08892	—	0.08892	0.08180	—	0.08180	—	1,076.15	1,076.15	0.04365	0.00873	—	1,079.84
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00177	0.00107	0.02735	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.74871	9.74871	0.00060	0.00158	0.00331	10.2376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08216	0.06904	0.47345	1.26873	0.00181	0.01623	—	0.01623	0.01493	—	0.01493	—	178.168	178.168	0.00723	0.00145	—	178.780
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00499	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.61401	1.61401	0.00010	0.00026	0.00055	1.69495
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09744	0.09568	0.06570	1.46916	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	472.823	472.823	0.00353	0.00265	0.56690	474.267
Vendor	0.00462	0.00275	0.09780	0.04081	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.6694	92.6694	0.00169	0.01411	0.08168	96.9981
Hauling	0.04938	0.02381	1.25752	0.40521	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,076.97	1,076.97	0.02425	0.17240	1.06810	1,130.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09480	0.09304	0.08466	1.16580	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	438.730	438.730	0.00441	0.00265	0.01470	439.643
Vendor	0.00436	0.00257	0.10378	0.04196	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.7706	92.7706	0.00169	0.01411	0.00212	97.0197
Hauling	0.04718	0.02205	1.33821	0.41182	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,077.78	1,077.78	0.02425	0.17284	0.02774	1,129.92
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06790	0.06664	0.04832	0.87826	0.00000	0.00000	0.34735	0.34735	0.00000	0.08100	0.08100	—	319.444	319.444	0.00316	0.00189	0.17545	320.263

Vendor	0.00325	0.00191	0.07274	0.02961	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	66.4043	66.4043	0.00121	0.01011	0.02524	69.4714
Hauling	0.03474	0.01642	0.94427	0.29244	0.00663	0.01263	0.25092	0.26355	0.01263	0.06905	0.08168	—	771.614	771.614	0.01737	0.12380	0.33058	809.270
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01239	0.01216	0.00882	0.16028	0.00000	0.00000	0.06339	0.06339	0.00000	0.01478	0.01478	—	52.8876	52.8876	0.00052	0.00031	0.02905	53.0232
Vendor	0.00059	0.00035	0.01327	0.00540	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	10.9940	10.9940	0.00020	0.00167	0.00418	11.5018
Hauling	0.00634	0.00300	0.17233	0.05337	0.00121	0.00231	0.04579	0.04810	0.00231	0.01260	0.01491	—	127.749	127.749	0.00288	0.02050	0.05473	133.984

3.46. Linear, Grading & Excavation (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62858	0.52818	3.62206	9.70610	0.01388	0.12414	—	0.12414	0.11421	—	0.11421	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00159	0.03686	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.5769	13.5769	0.00084	0.00216	0.01068	14.2524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62858	0.52818	3.62206	9.70610	0.01388	0.12414	—	0.12414	0.11421	—	0.11421	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03937	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.6578	13.6578	0.00084	0.00220	0.00028	14.3360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45022	0.37831	2.59427	6.95192	0.00994	0.08892	—	0.08892	0.08180	—	0.08180	—	1,076.15	1,076.15	0.04365	0.00873	—	1,079.84
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00177	0.00107	0.02735	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.74871	9.74871	0.00060	0.00158	0.00331	10.2376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08216	0.06904	0.47345	1.26873	0.00181	0.01623	—	0.01623	0.01493	—	0.01493	—	178.168	178.168	0.00723	0.00145	—	178.780
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00499	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.61401	1.61401	0.00010	0.00026	0.00055	1.69495
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09744	0.09568	0.06570	1.46916	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	472.823	472.823	0.00353	0.00265	0.56690	474.267
Vendor	0.00462	0.00275	0.09780	0.04081	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.6694	92.6694	0.00169	0.01411	0.08168	96.9981
Hauling	0.04938	0.02381	1.25752	0.40521	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,076.97	1,076.97	0.02425	0.17240	1.06810	1,130.02

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09480	0.09304	0.08466	1.16580	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	438.730	438.730	0.00441	0.00265	0.01470	439.643
Vendor	0.00436	0.00257	0.10378	0.04196	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.7706	92.7706	0.00169	0.01411	0.00212	97.0197
Hauling	0.04718	0.02205	1.33821	0.41182	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,077.78	1,077.78	0.02425	0.17284	0.02774	1,129.92
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06790	0.06664	0.04832	0.87826	0.00000	0.00000	0.34735	0.34735	0.00000	0.08100	0.08100	—	319.444	319.444	0.00316	0.00189	0.17545	320.263
Vendor	0.00325	0.00191	0.07274	0.02961	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	66.4043	66.4043	0.00121	0.01011	0.02524	69.4714
Hauling	0.03474	0.01642	0.94427	0.29244	0.00663	0.01263	0.25092	0.26355	0.01263	0.06905	0.08168	—	771.614	771.614	0.01737	0.12380	0.33058	809.270
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01239	0.01216	0.00882	0.16028	0.00000	0.00000	0.06339	0.06339	0.00000	0.01478	0.01478	—	52.8876	52.8876	0.00052	0.00031	0.02905	53.0232
Vendor	0.00059	0.00035	0.01327	0.00540	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	10.9940	10.9940	0.00020	0.00167	0.00418	11.5018
Hauling	0.00634	0.00300	0.17233	0.05337	0.00121	0.00231	0.04579	0.04810	0.00231	0.01260	0.01491	—	127.749	127.749	0.00288	0.02050	0.05473	133.984

3.47. Linear, Grading & Excavation (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61708	0.51852	3.50122	9.69704	0.01388	0.11404	—	0.11404	0.10491	—	0.10491	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00256	0.00163	0.03655	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3968	13.3968	0.00079	0.00216	0.00917	14.0697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61708	0.51852	3.50122	9.69704	0.01388	0.11404	—	0.11404	0.10491	—	0.10491	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03898	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.4784	13.4784	0.00079	0.00220	0.00024	14.1555
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44077	0.37037	2.50087	6.92646	0.00991	0.08146	—	0.08146	0.07494	—	0.07494	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02705	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.59364	9.59364	0.00057	0.00157	0.00283	10.0799
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08044	0.06759	0.45641	1.26408	0.00181	0.01487	—	0.01487	0.01368	—	0.01368	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00494	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.58834	1.58834	0.00009	0.00026	0.00047	1.66884

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09392	0.09215	0.06570	1.41316	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	468.529	468.529	0.00353	0.00265	0.48758	469.893
Vendor	0.00462	0.00275	0.09475	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.1129	90.1129	0.00169	0.01321	0.06779	94.1596
Hauling	0.04938	0.02425	1.23856	0.39727	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,060.14	1,060.14	0.02381	0.17240	0.91678	1,113.03
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09127	0.08951	0.06746	1.12259	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	434.724	434.724	0.00441	0.00265	0.01262	435.635
Vendor	0.00436	0.00257	0.10064	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.2152	90.2152	0.00169	0.01321	0.00176	94.1959
Hauling	0.04718	0.02205	1.31043	0.40433	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,060.96	1,060.96	0.02381	0.17284	0.02383	1,113.08
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06519	0.06393	0.04756	0.83398	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	315.676	315.676	0.00315	0.00189	0.15014	316.468
Vendor	0.00324	0.00190	0.07094	0.02889	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	64.3970	64.3970	0.00121	0.00944	0.02095	67.2600
Hauling	0.03464	0.01669	0.92815	0.28597	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	757.489	757.489	0.01701	0.12346	0.28283	794.988
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01190	0.01167	0.00868	0.15220	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	52.2638	52.2638	0.00052	0.00031	0.02486	52.3950
Vendor	0.00059	0.00035	0.01295	0.00527	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.6617	10.6617	0.00020	0.00156	0.00347	11.1357
Hauling	0.00632	0.00305	0.16939	0.05219	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	125.411	125.411	0.00282	0.02044	0.04683	131.619

3.48. Linear, Grading & Excavation (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.61708	0.51852	3.50122	9.69704	0.01388	0.11404	—	0.11404	0.10491	—	0.10491	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03655	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3968	13.3968	0.00079	0.00216	0.00917	14.0697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61708	0.51852	3.50122	9.69704	0.01388	0.11404	—	0.11404	0.10491	—	0.10491	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03898	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.4784	13.4784	0.00079	0.00220	0.00024	14.1555
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44077	0.37037	2.50087	6.92646	0.00991	0.08146	—	0.08146	0.07494	—	0.07494	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02705	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.59364	9.59364	0.00057	0.00157	0.00283	10.0799
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08044	0.06759	0.45641	1.26408	0.00181	0.01487	—	0.01487	0.01368	—	0.01368	—	177.681	177.681	0.00721	0.00144	—	178.291

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00494	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.58834	1.58834	0.00009	0.00026	0.00047	1.66884
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09392	0.09215	0.06570	1.41316	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	468.529	468.529	0.00353	0.00265	0.48758	469.893
Vendor	0.00462	0.00275	0.09475	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.1129	90.1129	0.00169	0.01321	0.06779	94.1596
Hauling	0.04938	0.02425	1.23856	0.39727	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,060.14	1,060.14	0.02381	0.17240	0.91678	1,113.03
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09127	0.08951	0.06746	1.12259	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	434.724	434.724	0.00441	0.00265	0.01262	435.635
Vendor	0.00436	0.00257	0.10064	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.2152	90.2152	0.00169	0.01321	0.00176	94.1959
Hauling	0.04718	0.02205	1.31043	0.40433	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,060.96	1,060.96	0.02381	0.17284	0.02383	1,113.08
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06519	0.06393	0.04756	0.83398	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	315.676	315.676	0.00315	0.00189	0.15014	316.468
Vendor	0.00324	0.00190	0.07094	0.02889	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	64.3970	64.3970	0.00121	0.00944	0.02095	67.2600
Hauling	0.03464	0.01669	0.92815	0.28597	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	757.489	757.489	0.01701	0.12346	0.28283	794.988
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01190	0.01167	0.00868	0.15220	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	52.2638	52.2638	0.00052	0.00031	0.02486	52.3950
Vendor	0.00059	0.00035	0.01295	0.00527	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.6617	10.6617	0.00020	0.00156	0.00347	11.1357
Hauling	0.00632	0.00305	0.16939	0.05219	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	125.411	125.411	0.00282	0.02044	0.04683	131.619

3.49. Linear, Grading & Excavation (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60696	0.51001	3.37319	9.69062	0.01388	0.10781	—	0.10781	0.09919	—	0.09919	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03624	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.2398	13.2398	0.00079	0.00207	0.00787	13.8850
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60696	0.51001	3.37319	9.69062	0.01388	0.10781	—	0.10781	0.09919	—	0.09919	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03876	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3220	13.3220	0.00079	0.00212	0.00020	13.9728
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43354	0.36429	2.40942	6.92187	0.00991	0.07701	—	0.07701	0.07085	—	0.07085	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00176	0.00110	0.02686	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.48167	9.48167	0.00057	0.00148	0.00242	9.93938
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07912	0.06648	0.43972	1.26324	0.00181	0.01405	—	0.01405	0.01293	—	0.01293	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00490	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.56980	1.56980	0.00009	0.00025	0.00040	1.64558
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08863	0.08774	0.06482	1.35717	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	464.731	464.731	0.00353	0.00265	0.41759	466.026
Vendor	0.00462	0.00275	0.09259	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.7950	87.7950	0.00169	0.01321	0.05570	91.8297
Hauling	0.04938	0.02425	1.21960	0.38978	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,045.34	1,045.34	0.02381	0.16358	0.78689	1,095.47
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08863	0.08686	0.06746	1.08115	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	431.183	431.183	0.00441	0.00265	0.01080	432.093
Vendor	0.00436	0.00257	0.09866	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.8985	87.8985	0.00169	0.01321	0.00144	91.8788
Hauling	0.04718	0.02205	1.29235	0.39639	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,046.16	1,046.16	0.02381	0.16402	0.02043	1,095.66
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06267	0.06204	0.04756	0.80500	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	313.113	313.113	0.00252	0.00189	0.12864	313.868
Vendor	0.00324	0.00190	0.06940	0.02882	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	62.7418	62.7418	0.00121	0.00944	0.01718	65.6011
Hauling	0.03464	0.01669	0.91492	0.28030	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	746.920	746.920	0.01701	0.11684	0.24230	782.407
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01144	0.01132	0.00868	0.14691	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	51.8395	51.8395	0.00042	0.00031	0.02130	51.9645

Vendor	0.00059	0.00035	0.01267	0.00526	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.3876	10.3876	0.00020	0.00156	0.00284	10.8610
Hauling	0.00632	0.00305	0.16697	0.05116	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	123.661	123.661	0.00282	0.01935	0.04012	129.536

3.50. Linear, Grading & Excavation (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60696	0.51001	3.37319	9.69062	0.01388	0.10781	—	0.10781	0.09919	—	0.09919	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03624	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.2398	13.2398	0.00079	0.00207	0.00787	13.8850
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60696	0.51001	3.37319	9.69062	0.01388	0.10781	—	0.10781	0.09919	—	0.09919	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03876	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3220	13.3220	0.00079	0.00212	0.00020	13.9728
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.43354	0.36429	2.40942	6.92187	0.00991	0.07701	—	0.07701	0.07085	—	0.07085	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02686	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.48167	9.48167	0.00057	0.00148	0.00242	9.93938
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07912	0.06648	0.43972	1.26324	0.00181	0.01405	—	0.01405	0.01293	—	0.01293	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00490	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.56980	1.56980	0.00009	0.00025	0.00040	1.64558
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08863	0.08774	0.06482	1.35717	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	464.731	464.731	0.00353	0.00265	0.41759	466.026
Vendor	0.00462	0.00275	0.09259	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.7950	87.7950	0.00169	0.01321	0.05570	91.8297
Hauling	0.04938	0.02425	1.21960	0.38978	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,045.34	1,045.34	0.02381	0.16358	0.78689	1,095.47
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08863	0.08686	0.06746	1.08115	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	431.183	431.183	0.00441	0.00265	0.01080	432.093
Vendor	0.00436	0.00257	0.09866	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.8985	87.8985	0.00169	0.01321	0.00144	91.8788
Hauling	0.04718	0.02205	1.29235	0.39639	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,046.16	1,046.16	0.02381	0.16402	0.02043	1,095.66
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06267	0.06204	0.04756	0.80500	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	313.113	313.113	0.00252	0.00189	0.12864	313.868

Vendor	0.00324	0.00190	0.06940	0.02882	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	62.7418	62.7418	0.00121	0.00944	0.01718	65.6011
Hauling	0.03464	0.01669	0.91492	0.28030	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	746.920	746.920	0.01701	0.11684	0.24230	782.407
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01144	0.01132	0.00868	0.14691	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	51.8395	51.8395	0.00042	0.00031	0.02130	51.9645
Vendor	0.00059	0.00035	0.01267	0.00526	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.3876	10.3876	0.00020	0.00156	0.00284	10.8610
Hauling	0.00632	0.00305	0.16697	0.05116	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	123.661	123.661	0.00282	0.01935	0.04012	129.536

3.51. Linear, Grading & Excavation (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59785	0.50236	3.25906	9.68296	0.01388	0.10260	—	0.10260	0.09439	—	0.09439	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03594	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1081	13.1081	0.00075	0.00207	0.00673	13.7511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59785	0.50236	3.25906	9.68296	0.01388	0.10260	—	0.10260	0.09439	—	0.09439	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03845	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1911	13.1911	0.00075	0.00212	0.00018	13.8407
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42704	0.35883	2.32790	6.91640	0.00991	0.07329	—	0.07329	0.06742	—	0.06742	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00110	0.02664	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.38782	9.38782	0.00054	0.00148	0.00208	9.84440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07793	0.06549	0.42484	1.26224	0.00181	0.01337	—	0.01337	0.01230	—	0.01230	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.55426	1.55426	0.00009	0.00025	0.00034	1.62985
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08510	0.08422	0.04850	1.31836	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	461.413	461.413	0.00353	0.00265	0.35461	462.644
Vendor	0.00462	0.00284	0.09143	0.03884	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.7561	85.7561	0.00160	0.01321	0.04515	89.7779
Hauling	0.04938	0.02425	1.20064	0.38184	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,032.83	1,032.83	0.02337	0.16358	0.67340	1,082.84

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08422	0.08245	0.06658	1.03970	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	428.072	428.072	0.00353	0.00265	0.00922	428.958
Vendor	0.00436	0.00257	0.09651	0.04007	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.8606	85.8606	0.00160	0.01321	0.00117	89.8386
Hauling	0.04674	0.02205	1.27339	0.38845	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,033.66	1,033.66	0.02337	0.16402	0.01753	1,083.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05952	0.05889	0.04693	0.77666	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	310.858	310.858	0.00252	0.00189	0.10965	311.594
Vendor	0.00324	0.00197	0.06793	0.02818	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	61.2858	61.2858	0.00115	0.00944	0.01387	64.1402
Hauling	0.03433	0.01669	0.90138	0.27463	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	737.988	737.988	0.01669	0.11684	0.20807	773.433
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01086	0.01075	0.00856	0.14174	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	51.4661	51.4661	0.00042	0.00031	0.01815	51.5879
Vendor	0.00059	0.00036	0.01240	0.00514	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.1466	10.1466	0.00019	0.00156	0.00230	10.6191
Hauling	0.00627	0.00305	0.16450	0.05012	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	122.182	122.182	0.00276	0.01935	0.03445	128.051

3.52. Linear, Grading & Excavation (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59785	0.50236	3.25906	9.68296	0.01388	0.10260	—	0.10260	0.09439	—	0.09439	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00256	0.00163	0.03594	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1081	13.1081	0.00075	0.00207	0.00673	13.7511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59785	0.50236	3.25906	9.68296	0.01388	0.10260	—	0.10260	0.09439	—	0.09439	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03845	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1911	13.1911	0.00075	0.00212	0.00018	13.8407
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42704	0.35883	2.32790	6.91640	0.00991	0.07329	—	0.07329	0.06742	—	0.06742	—	1,073.21	1,073.21	0.04353	0.00871	—	1,076.89
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00110	0.02664	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.38782	9.38782	0.00054	0.00148	0.00208	9.84440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07793	0.06549	0.42484	1.26224	0.00181	0.01337	—	0.01337	0.01230	—	0.01230	—	177.681	177.681	0.00721	0.00144	—	178.291
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.55426	1.55426	0.00009	0.00025	0.00034	1.62985

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08510	0.08422	0.04850	1.31836	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	461.413	461.413	0.00353	0.00265	0.35461	462.644
Vendor	0.00462	0.00284	0.09143	0.03884	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.7561	85.7561	0.00160	0.01321	0.04515	89.7779
Hauling	0.04938	0.02425	1.20064	0.38184	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,032.83	1,032.83	0.02337	0.16358	0.67340	1,082.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08422	0.08245	0.06658	1.03970	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	428.072	428.072	0.00353	0.00265	0.00922	428.958
Vendor	0.00436	0.00257	0.09651	0.04007	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.8606	85.8606	0.00160	0.01321	0.00117	89.8386
Hauling	0.04674	0.02205	1.27339	0.38845	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,033.66	1,033.66	0.02337	0.16402	0.01753	1,083.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05952	0.05889	0.04693	0.77666	0.00000	0.00000	0.34640	0.34640	0.00000	0.08077	0.08077	—	310.858	310.858	0.00252	0.00189	0.10965	311.594
Vendor	0.00324	0.00197	0.06793	0.02818	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	61.2858	61.2858	0.00115	0.00944	0.01387	64.1402
Hauling	0.03433	0.01669	0.90138	0.27463	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	737.988	737.988	0.01669	0.11684	0.20807	773.433
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01086	0.01075	0.00856	0.14174	0.00000	0.00000	0.06322	0.06322	0.00000	0.01474	0.01474	—	51.4661	51.4661	0.00042	0.00031	0.01815	51.5879
Vendor	0.00059	0.00036	0.01240	0.00514	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.1466	10.1466	0.00019	0.00156	0.00230	10.6191
Hauling	0.00627	0.00305	0.16450	0.05012	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	122.182	122.182	0.00276	0.01935	0.03445	128.051

3.53. Linear, Grading & Excavation (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.59032	0.49603	3.16076	9.67752	0.01388	0.10057	—	0.10057	0.09253	—	0.09253	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03580	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9956	12.9956	0.00075	0.00207	0.00576	13.6377
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59032	0.49603	3.16076	9.67752	0.01388	0.10057	—	0.10057	0.09253	—	0.09253	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03832	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.0793	13.0793	0.00075	0.00212	0.00015	13.7289
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42281	0.35528	2.26387	6.93146	0.00994	0.07203	—	0.07203	0.06627	—	0.06627	—	1,076.15	1,076.15	0.04365	0.00873	—	1,079.84
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00111	0.02662	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.33317	9.33317	0.00054	0.00148	0.00178	9.79069
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07716	0.06484	0.41316	1.26499	0.00181	0.01315	—	0.01315	0.01209	—	0.01209	—	178.168	178.168	0.00723	0.00145	—	178.780

Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.54521	1.54521	0.00009	0.00025	0.00029	1.62096
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08157	0.06349	0.04762	1.28133	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	458.509	458.509	0.00265	0.00265	0.30328	459.667
Vendor	0.00453	0.00275	0.08928	0.03803	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	83.9263	83.9263	0.00160	0.01231	0.03614	87.6711
Hauling	0.04938	0.02425	1.19138	0.37390	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,022.03	1,022.03	0.02337	0.16358	0.57630	1,071.93
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08157	0.06349	0.06658	1.01721	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	425.361	425.361	0.00353	0.00265	0.00784	426.246
Vendor	0.00427	0.00249	0.09535	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	84.0318	84.0318	0.00160	0.01231	0.00094	87.7415
Hauling	0.04674	0.02205	1.26413	0.38052	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,022.86	1,022.86	0.02337	0.16402	0.01501	1,072.34
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05716	0.04484	0.04706	0.76268	0.00000	0.00000	0.34735	0.34735	0.00000	0.08100	0.08100	—	309.745	309.745	0.00253	0.00189	0.09357	310.467
Vendor	0.00312	0.00191	0.06664	0.02755	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	60.1434	60.1434	0.00115	0.00882	0.01115	62.8108
Hauling	0.03442	0.01674	0.89721	0.26970	0.00663	0.01263	0.25092	0.26355	0.01263	0.06905	0.08168	—	732.271	732.271	0.01674	0.11717	0.17793	767.782
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01043	0.00818	0.00859	0.13919	0.00000	0.00000	0.06339	0.06339	0.00000	0.01478	0.01478	—	51.2819	51.2819	0.00042	0.00031	0.01549	51.4013
Vendor	0.00057	0.00035	0.01216	0.00503	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	9.95742	9.95742	0.00019	0.00146	0.00185	10.3990
Hauling	0.00628	0.00305	0.16374	0.04922	0.00121	0.00231	0.04579	0.04810	0.00231	0.01260	0.01491	—	121.236	121.236	0.00277	0.01940	0.02946	127.115

3.54. Linear, Grading & Excavation (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59032	0.49603	3.16076	9.67752	0.01388	0.10057	—	0.10057	0.09253	—	0.09253	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03580	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9956	12.9956	0.00075	0.00207	0.00576	13.6377
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59032	0.49603	3.16076	9.67752	0.01388	0.10057	—	0.10057	0.09253	—	0.09253	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03832	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.0793	13.0793	0.00075	0.00212	0.00015	13.7289
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42281	0.35528	2.26387	6.93146	0.00994	0.07203	—	0.07203	0.06627	—	0.06627	—	1,076.15	1,076.15	0.04365	0.00873	—	1,079.84
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—

Onsite truck	0.00174	0.00111	0.02662	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.33317	9.33317	0.00054	0.00148	0.00178	9.79069
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07716	0.06484	0.41316	1.26499	0.00181	0.01315	—	0.01315	0.01209	—	0.01209	—	178.168	178.168	0.00723	0.00145	—	178.780
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.54521	1.54521	0.00009	0.00025	0.00029	1.62096
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08157	0.06349	0.04762	1.28133	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	458.509	458.509	0.00265	0.00265	0.30328	459.667
Vendor	0.00453	0.00275	0.08928	0.03803	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	83.9263	83.9263	0.00160	0.01231	0.03614	87.6711
Hauling	0.04938	0.02425	1.19138	0.37390	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,022.03	1,022.03	0.02337	0.16358	0.57630	1,071.93
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08157	0.06349	0.06658	1.01721	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	425.361	425.361	0.00353	0.00265	0.00784	426.246
Vendor	0.00427	0.00249	0.09535	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	84.0318	84.0318	0.00160	0.01231	0.00094	87.7415
Hauling	0.04674	0.02205	1.26413	0.38052	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,022.86	1,022.86	0.02337	0.16402	0.01501	1,072.34
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05716	0.04484	0.04706	0.76268	0.00000	0.00000	0.34735	0.34735	0.00000	0.08100	0.08100	—	309.745	309.745	0.00253	0.00189	0.09357	310.467
Vendor	0.00312	0.00191	0.06664	0.02755	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	60.1434	60.1434	0.00115	0.00882	0.01115	62.8108
Hauling	0.03442	0.01674	0.89721	0.26970	0.00663	0.01263	0.25092	0.26355	0.01263	0.06905	0.08168	—	732.271	732.271	0.01674	0.11717	0.17793	767.782
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01043	0.00818	0.00859	0.13919	0.00000	0.00000	0.06339	0.06339	0.00000	0.01478	0.01478	—	51.2819	51.2819	0.00042	0.00031	0.01549	51.4013

Vendor	0.00057	0.00035	0.01216	0.00503	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	9.95742	9.95742	0.00019	0.00146	0.00185	10.3990
Hauling	0.00628	0.00305	0.16374	0.04922	0.00121	0.00231	0.04579	0.04810	0.00231	0.01260	0.01491	—	121.236	121.236	0.00277	0.01940	0.02946	127.115

3.55. Linear, Grading & Excavation (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58513	0.49167	3.09628	9.67342	0.01388	0.09661	—	0.09661	0.08889	—	0.08889	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00172	0.03713	0.02601	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9010	12.9010	0.00075	0.00207	0.00496	13.5423
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58513	0.49167	3.09628	9.67342	0.01388	0.09661	—	0.09661	0.08889	—	0.08889	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03818	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9855	12.9855	0.00075	0.00212	0.00013	13.6351
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.20497	0.17223	1.08461	3.38854	0.00486	0.03384	—	0.03384	0.03114	—	0.03114	—	526.312	526.312	0.02135	0.00427	—	528.118
Dust From Material Movement	—	—	—	—	—	—	0.04829	0.04829	—	0.00521	0.00521	—	—	—	—	—	—	—
Onsite truck	0.00085	0.00054	0.01293	0.00879	0.00005	0.00006	0.35945	0.35951	0.00006	0.03595	0.03602	—	4.53157	4.53157	0.00026	0.00073	0.00075	4.75522
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03741	0.03143	0.19794	0.61841	0.00089	0.00618	—	0.00618	0.00568	—	0.00568	—	87.1369	87.1369	0.00353	0.00071	—	87.4360
Dust From Material Movement	—	—	—	—	—	—	0.00881	0.00881	—	0.00095	0.00095	—	—	—	—	—	—	—
Onsite truck	0.00016	0.00010	0.00236	0.00160	0.00001	0.00001	0.06560	0.06561	0.00001	0.00656	0.00657	—	0.75025	0.75025	0.00004	0.00012	0.00012	0.78728
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07893	0.06085	0.04762	1.24429	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	455.856	455.856	0.00265	0.00265	0.25662	456.967
Vendor	0.00462	0.00284	0.09150	0.04034	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.2865	82.2865	0.00160	0.01231	0.02881	86.0240
Hauling	0.05027	0.02513	1.22842	0.39507	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,012.83	1,012.83	0.02337	0.16358	0.49559	1,062.65
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07804	0.05997	0.06570	0.99473	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	422.884	422.884	0.00353	0.00265	0.00667	423.767
Vendor	0.00427	0.00249	0.09328	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.3931	82.3931	0.00160	0.01231	0.00075	86.1026
Hauling	0.04674	0.02249	1.25487	0.38184	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,013.67	1,013.67	0.02337	0.16402	0.01286	1,063.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02734	0.02131	0.01699	0.35972	0.00000	0.00000	0.16988	0.16988	0.00000	0.03961	0.03961	—	150.609	150.609	0.00124	0.00093	0.03890	150.954

Vendor	0.00153	0.00093	0.03218	0.01351	0.00032	0.00032	0.01126	0.01157	0.00032	0.00313	0.00344	—	28.8401	28.8401	0.00056	0.00431	0.00436	30.1436
Hauling	0.01684	0.00819	0.43231	0.13237	0.00324	0.00618	0.12272	0.12890	0.00618	0.03377	0.03995	—	354.911	354.911	0.00819	0.05730	0.07510	372.267
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00499	0.00389	0.00310	0.06565	0.00000	0.00000	0.03100	0.03100	0.00000	0.00723	0.00723	—	24.9350	24.9350	0.00020	0.00015	0.00644	24.9922
Vendor	0.00028	0.00017	0.00587	0.00246	0.00006	0.00006	0.00205	0.00211	0.00006	0.00057	0.00063	—	4.77481	4.77481	0.00009	0.00071	0.00072	4.99062
Hauling	0.00307	0.00149	0.07890	0.02416	0.00059	0.00113	0.02240	0.02352	0.00113	0.00616	0.00729	—	58.7596	58.7596	0.00136	0.00949	0.01243	61.6330

3.56. Linear, Grading & Excavation (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58513	0.49167	3.09628	9.67342	0.01388	0.09661	—	0.09661	0.08889	—	0.08889	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00172	0.03713	0.02601	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9010	12.9010	0.00075	0.00207	0.00496	13.5423
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58513	0.49167	3.09628	9.67342	0.01388	0.09661	—	0.09661	0.08889	—	0.08889	—	1,502.49	1,502.49	0.06095	0.01219	—	1,507.64

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03818	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9855	12.9855	0.00075	0.00212	0.00013	13.6351
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20497	0.17223	1.08461	3.38854	0.00486	0.03384	—	0.03384	0.03114	—	0.03114	—	526.312	526.312	0.02135	0.00427	—	528.118
Dust From Material Movement	—	—	—	—	—	—	0.04829	0.04829	—	0.00521	0.00521	—	—	—	—	—	—	—
Onsite truck	0.00085	0.00054	0.01293	0.00879	0.00005	0.00006	0.35945	0.35951	0.00006	0.03595	0.03602	—	4.53157	4.53157	0.00026	0.00073	0.00075	4.75522
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03741	0.03143	0.19794	0.61841	0.00089	0.00618	—	0.00618	0.00568	—	0.00568	—	87.1369	87.1369	0.00353	0.00071	—	87.4360
Dust From Material Movement	—	—	—	—	—	—	0.00881	0.00881	—	0.00095	0.00095	—	—	—	—	—	—	—
Onsite truck	0.00016	0.00010	0.00236	0.00160	0.00001	0.00001	0.06560	0.06561	0.00001	0.00656	0.00657	—	0.75025	0.75025	0.00004	0.00012	0.00012	0.78728
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07893	0.06085	0.04762	1.24429	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	455.856	455.856	0.00265	0.00265	0.25662	456.967
Vendor	0.00462	0.00284	0.09150	0.04034	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.2865	82.2865	0.00160	0.01231	0.02881	86.0240
Hauling	0.05027	0.02513	1.22842	0.39507	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,012.83	1,012.83	0.02337	0.16358	0.49559	1,062.65

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07804	0.05997	0.06570	0.99473	0.00000	0.00000	0.52284	0.52284	0.00000	0.12255	0.12255	—	422.884	422.884	0.00353	0.00265	0.00667	423.767
Vendor	0.00427	0.00249	0.09328	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.3931	82.3931	0.00160	0.01231	0.00075	86.1026
Hauling	0.04674	0.02249	1.25487	0.38184	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,013.67	1,013.67	0.02337	0.16402	0.01286	1,063.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02734	0.02131	0.01699	0.35972	0.00000	0.00000	0.16988	0.16988	0.00000	0.03961	0.03961	—	150.609	150.609	0.00124	0.00093	0.03890	150.954
Vendor	0.00153	0.00093	0.03218	0.01351	0.00032	0.00032	0.01126	0.01157	0.00032	0.00313	0.00344	—	28.8401	28.8401	0.00056	0.00431	0.00436	30.1436
Hauling	0.01684	0.00819	0.43231	0.13237	0.00324	0.00618	0.12272	0.12890	0.00618	0.03377	0.03995	—	354.911	354.911	0.00819	0.05730	0.07510	372.267
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00499	0.00389	0.00310	0.06565	0.00000	0.00000	0.03100	0.03100	0.00000	0.00723	0.00723	—	24.9350	24.9350	0.00020	0.00015	0.00644	24.9922
Vendor	0.00028	0.00017	0.00587	0.00246	0.00006	0.00006	0.00205	0.00211	0.00006	0.00057	0.00063	—	4.77481	4.77481	0.00009	0.00071	0.00072	4.99062
Hauling	0.00307	0.00149	0.07890	0.02416	0.00059	0.00113	0.02240	0.02352	0.00113	0.00616	0.00729	—	58.7596	58.7596	0.00136	0.00949	0.01243	61.6330

3.57. Linear, Drainage, Utilities, & Sub-Grade (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86976	0.72655	6.20099	9.87596	0.01524	0.22421	—	0.22421	0.20627	—	0.20627	—	1,511.03	1,511.03	0.06129	0.01226	—	1,516.21
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00269	0.00154	0.03527	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.73098	9.73098	0.00097	0.00154	0.01375	10.2289
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86976	0.72655	6.20099	9.87596	0.01524	0.22421	—	0.22421	0.20627	—	0.20627	—	1,511.03	1,511.03	0.06129	0.01226	—	1,516.21
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00132	0.03739	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.80576	9.80576	0.00097	0.00159	0.00036	10.3034
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61956	0.51754	4.41714	7.03493	0.01086	0.15971	—	0.15971	0.14693	—	0.14693	—	1,076.35	1,076.35	0.04366	0.00873	—	1,080.04
Dust From Material Movement	—	—	—	—	—	—	0.09821	0.09821	—	0.01060	0.01060	—	—	—	—	—	—	—
Onsite truck	0.00185	0.00104	0.02588	0.01705	0.00006	0.00009	0.36547	0.36556	0.00009	0.03656	0.03665	—	6.95402	6.95402	0.00069	0.00113	0.00423	7.31247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11307	0.09445	0.80613	1.28387	0.00198	0.02915	—	0.02915	0.02682	—	0.02682	—	178.202	178.202	0.00723	0.00145	—	178.813
Dust From Material Movement	—	—	—	—	—	—	0.01792	0.01792	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00019	0.00472	0.00311	0.00001	0.00002	0.06670	0.06672	0.00002	0.00667	0.00669	—	1.15132	1.15132	0.00011	0.00019	0.00070	1.21066

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21109	0.18739	0.17251	2.90239	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	661.064	661.064	0.00772	0.02370	1.98008	670.299
Vendor	0.01337	0.00765	0.26360	0.10515	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	239.234	239.234	0.00554	0.03379	0.53766	249.980
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18409	0.17968	0.19731	2.32588	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	613.276	613.276	0.00882	0.02370	0.05132	620.611
Vendor	0.01284	0.00713	0.27881	0.10635	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	239.408	239.408	0.00554	0.03379	0.01394	249.630
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12956	0.12642	0.13898	1.72707	0.00000	0.00000	0.43182	0.43182	0.00000	0.10069	0.10069	—	444.073	444.073	0.00628	0.01688	0.60864	449.870
Vendor	0.00927	0.00520	0.19556	0.07475	0.00128	0.00256	0.04578	0.04834	0.00256	0.01273	0.01529	—	170.465	170.465	0.00394	0.02407	0.16511	177.902
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02364	0.02307	0.02536	0.31519	0.00000	0.00000	0.07881	0.07881	0.00000	0.01838	0.01838	—	73.5214	73.5214	0.00104	0.00280	0.10077	74.4811
Vendor	0.00169	0.00095	0.03569	0.01364	0.00023	0.00047	0.00836	0.00882	0.00047	0.00232	0.00279	—	28.2225	28.2225	0.00065	0.00399	0.02734	29.4537
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.58. Linear, Drainage, Utilities, & Sub-Grade (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.86976	0.72655	6.20099	9.87596	0.01524	0.22421	—	0.22421	0.20627	—	0.20627	—	1,511.03	1,511.03	0.06129	0.01226	—	1,516.21
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00154	0.03527	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.73098	9.73098	0.00097	0.00154	0.01375	10.2289
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86976	0.72655	6.20099	9.87596	0.01524	0.22421	—	0.22421	0.20627	—	0.20627	—	1,511.03	1,511.03	0.06129	0.01226	—	1,516.21
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00132	0.03739	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.80576	9.80576	0.00097	0.00159	0.00036	10.3034
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61956	0.51754	4.41714	7.03493	0.01086	0.15971	—	0.15971	0.14693	—	0.14693	—	1,076.35	1,076.35	0.04366	0.00873	—	1,080.04
Dust From Material Movement	—	—	—	—	—	—	0.09821	0.09821	—	0.01060	0.01060	—	—	—	—	—	—	—
Onsite truck	0.00185	0.00104	0.02588	0.01705	0.00006	0.00009	0.36547	0.36556	0.00009	0.03656	0.03665	—	6.95402	6.95402	0.00069	0.00113	0.00423	7.31247
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11307	0.09445	0.80613	1.28387	0.00198	0.02915	—	0.02915	0.02682	—	0.02682	—	178.202	178.202	0.00723	0.00145	—	178.813

Dust From Material Movement	—	—	—	—	—	—	0.01792	0.01792	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00019	0.00472	0.00311	0.00001	0.00002	0.06670	0.06672	0.00002	0.00667	0.00669	—	1.15132	1.15132	0.00011	0.00019	0.00070	1.21066
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21109	0.18739	0.17251	2.90239	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	661.064	661.064	0.00772	0.02370	1.98008	670.299
Vendor	0.01337	0.00765	0.26360	0.10515	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	239.234	239.234	0.00554	0.03379	0.53766	249.980
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18409	0.17968	0.19731	2.32588	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	613.276	613.276	0.00882	0.02370	0.05132	620.611
Vendor	0.01284	0.00713	0.27881	0.10635	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	239.408	239.408	0.00554	0.03379	0.01394	249.630
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12956	0.12642	0.13898	1.72707	0.00000	0.00000	0.43182	0.43182	0.00000	0.10069	0.10069	—	444.073	444.073	0.00628	0.01688	0.60864	449.870
Vendor	0.00927	0.00520	0.19556	0.07475	0.00128	0.00256	0.04578	0.04834	0.00256	0.01273	0.01529	—	170.465	170.465	0.00394	0.02407	0.16511	177.902
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02364	0.02307	0.02536	0.31519	0.00000	0.00000	0.07881	0.07881	0.00000	0.01838	0.01838	—	73.5214	73.5214	0.00104	0.00280	0.10077	74.4811
Vendor	0.00169	0.00095	0.03569	0.01364	0.00023	0.00047	0.00836	0.00882	0.00047	0.00232	0.00279	—	28.2225	28.2225	0.00065	0.00399	0.02734	29.4537
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.59. Linear, Drainage, Utilities, & Sub-Grade (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83736	0.69944	5.93648	9.87223	0.01524	0.20387	—	0.20387	0.18756	—	0.18756	—	1,510.62	1,510.62	0.06128	0.01226	—	1,515.81
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00154	0.03470	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.51493	9.51493	0.00097	0.00150	0.01261	9.99854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83736	0.69944	5.93648	9.87223	0.01524	0.20387	—	0.20387	0.18756	—	0.18756	—	1,510.62	1,510.62	0.06128	0.01226	—	1,515.81
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00132	0.03677	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.59037	9.59037	0.00097	0.00154	0.00033	10.0748
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59812	0.49960	4.24034	7.05159	0.01089	0.14562	—	0.14562	0.13397	—	0.13397	—	1,079.02	1,079.02	0.04377	0.00875	—	1,082.72
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00183	0.00104	0.02554	0.01710	0.00006	0.00009	0.36647	0.36657	0.00009	0.03666	0.03675	—	6.81899	6.81899	0.00069	0.00107	0.00389	7.15930
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10916	0.09118	0.77386	1.28692	0.00199	0.02658	—	0.02658	0.02445	—	0.02445	—	178.644	178.644	0.00725	0.00145	—	179.257
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00466	0.00312	0.00001	0.00002	0.06688	0.06690	0.00002	0.00669	0.00671	—	1.12896	1.12896	0.00011	0.00018	0.00064	1.18530
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18188	0.17968	0.15102	2.71940	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	649.520	649.520	0.00661	0.02370	1.77303	658.521
Vendor	0.01319	0.00568	0.25157	0.09923	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	232.683	232.683	0.00536	0.03379	0.48106	243.368
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17527	0.15157	0.17472	2.17596	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	602.617	602.617	0.00882	0.02370	0.04608	609.946
Vendor	0.01284	0.00533	0.26660	0.10240	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	232.862	232.862	0.00536	0.03379	0.01245	243.078
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12519	0.12283	0.12401	1.62630	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	437.551	437.551	0.00551	0.01693	0.54782	443.282
Vendor	0.00930	0.00393	0.18738	0.07188	0.00128	0.00257	0.04591	0.04848	0.00257	0.01276	0.01533	—	166.256	166.256	0.00383	0.02414	0.14792	173.693
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02285	0.02242	0.02263	0.29680	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	72.4416	72.4416	0.00091	0.00280	0.09070	73.3903

Vendor	0.00170	0.00072	0.03420	0.01312	0.00023	0.00047	0.00838	0.00885	0.00047	0.00233	0.00280	—	27.5256	27.5256	0.00063	0.00400	0.02449	28.7568
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.60. Linear, Drainage, Utilities, & Sub-Grade (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83736	0.69944	5.93648	9.87223	0.01524	0.20387	—	0.20387	0.18756	—	0.18756	—	1,510.62	1,510.62	0.06128	0.01226	—	1,515.81
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00154	0.03470	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.51493	9.51493	0.00097	0.00150	0.01261	9.99854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83736	0.69944	5.93648	9.87223	0.01524	0.20387	—	0.20387	0.18756	—	0.18756	—	1,510.62	1,510.62	0.06128	0.01226	—	1,515.81
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00132	0.03677	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.59037	9.59037	0.00097	0.00154	0.00033	10.0748
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.59812	0.49960	4.24034	7.05159	0.01089	0.14562	—	0.14562	0.13397	—	0.13397	—	1,079.02	1,079.02	0.04377	0.00875	—	1,082.72
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00104	0.02554	0.01710	0.00006	0.00009	0.36647	0.36657	0.00009	0.03666	0.03675	—	6.81899	6.81899	0.00069	0.00107	0.00389	7.15930
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10916	0.09118	0.77386	1.28692	0.00199	0.02658	—	0.02658	0.02445	—	0.02445	—	178.644	178.644	0.00725	0.00145	—	179.257
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00466	0.00312	0.00001	0.00002	0.06688	0.06690	0.00002	0.00669	0.00671	—	1.12896	1.12896	0.00011	0.00018	0.00064	1.18530
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18188	0.17968	0.15102	2.71940	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	649.520	649.520	0.00661	0.02370	1.77303	658.521
Vendor	0.01319	0.00568	0.25157	0.09923	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	232.683	232.683	0.00536	0.03379	0.48106	243.368
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17527	0.15157	0.17472	2.17596	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	602.617	602.617	0.00882	0.02370	0.04608	609.946
Vendor	0.01284	0.00533	0.26660	0.10240	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	232.862	232.862	0.00536	0.03379	0.01245	243.078
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12519	0.12283	0.12401	1.62630	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	437.551	437.551	0.00551	0.01693	0.54782	443.282

Vendor	0.00930	0.00393	0.18738	0.07188	0.00128	0.00257	0.04591	0.04848	0.00257	0.01276	0.01533	—	166.256	166.256	0.00383	0.02414	0.14792	173.693
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02285	0.02242	0.02263	0.29680	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	72.4416	72.4416	0.00091	0.00280	0.09070	73.3903
Vendor	0.00170	0.00072	0.03420	0.01312	0.00023	0.00047	0.00838	0.00885	0.00047	0.00233	0.00280	—	27.5256	27.5256	0.00063	0.00400	0.02449	28.7568
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.61. Linear, Drainage, Utilities, & Sub-Grade (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81288	0.67896	5.75627	9.85686	0.01524	0.19246	—	0.19246	0.17706	—	0.17706	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03417	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.30540	9.30540	0.00093	0.00150	0.01148	9.78677
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81288	0.67896	5.75627	9.85686	0.01524	0.19246	—	0.19246	0.17706	—	0.17706	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.82

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03629	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.38160	9.38160	0.00088	0.00150	0.00030	9.85068
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58063	0.48497	4.11162	7.04062	0.01089	0.13747	—	0.13747	0.12647	—	0.12647	—	1,079.03	1,079.03	0.04377	0.00875	—	1,082.73
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02516	0.01710	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.66958	6.66958	0.00063	0.00107	0.00354	7.00797
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10597	0.08851	0.75037	1.28491	0.00199	0.02509	—	0.02509	0.02308	—	0.02308	—	178.645	178.645	0.00725	0.00145	—	179.258
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00459	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.10423	1.10423	0.00010	0.00018	0.00059	1.16025
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17417	0.15157	0.12842	2.55681	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	638.638	638.638	0.00661	0.02370	1.58056	647.447
Vendor	0.01319	0.00568	0.24134	0.09707	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	225.685	225.685	0.00536	0.03199	0.42447	235.778
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16865	0.14495	0.15322	2.04754	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	592.556	592.556	0.00772	0.02370	0.04112	599.852
Vendor	0.01266	0.00533	0.25457	0.09990	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	225.868	225.868	0.00536	0.03199	0.01101	235.547
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11968	0.10275	0.10866	1.52158	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	430.253	430.253	0.00551	0.01693	0.48742	435.923
Vendor	0.00930	0.00393	0.18007	0.07035	0.00128	0.00257	0.04591	0.04848	0.00128	0.01276	0.01405	—	161.259	161.259	0.00383	0.02285	0.13102	168.295
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02184	0.01875	0.01983	0.27769	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	71.2333	71.2333	0.00091	0.00280	0.08070	72.1720
Vendor	0.00170	0.00072	0.03286	0.01284	0.00023	0.00047	0.00838	0.00885	0.00023	0.00233	0.00256	—	26.6982	26.6982	0.00063	0.00378	0.02169	27.8632
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.62. Linear, Drainage, Utilities, & Sub-Grade (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81288	0.67896	5.75627	9.85686	0.01524	0.19246	—	0.19246	0.17706	—	0.17706	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00260	0.00154	0.03417	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.30540	9.30540	0.00093	0.00150	0.01148	9.78677
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81288	0.67896	5.75627	9.85686	0.01524	0.19246	—	0.19246	0.17706	—	0.17706	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03629	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.38160	9.38160	0.00088	0.00150	0.00030	9.85068
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58063	0.48497	4.11162	7.04062	0.01089	0.13747	—	0.13747	0.12647	—	0.12647	—	1,079.03	1,079.03	0.04377	0.00875	—	1,082.73
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02516	0.01710	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.66958	6.66958	0.00063	0.00107	0.00354	7.00797
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10597	0.08851	0.75037	1.28491	0.00199	0.02509	—	0.02509	0.02308	—	0.02308	—	178.645	178.645	0.00725	0.00145	—	179.258
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00459	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.10423	1.10423	0.00010	0.00018	0.00059	1.16025

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17417	0.15157	0.12842	2.55681	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	638.638	638.638	0.00661	0.02370	1.58056	647.447
Vendor	0.01319	0.00568	0.24134	0.09707	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	225.685	225.685	0.00536	0.03199	0.42447	235.778
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16865	0.14495	0.15322	2.04754	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	592.556	592.556	0.00772	0.02370	0.04112	599.852
Vendor	0.01266	0.00533	0.25457	0.09990	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	225.868	225.868	0.00536	0.03199	0.01101	235.547
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11968	0.10275	0.10866	1.52158	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	430.253	430.253	0.00551	0.01693	0.48742	435.923
Vendor	0.00930	0.00393	0.18007	0.07035	0.00128	0.00257	0.04591	0.04848	0.00128	0.01276	0.01405	—	161.259	161.259	0.00383	0.02285	0.13102	168.295
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02184	0.01875	0.01983	0.27769	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	71.2333	71.2333	0.00091	0.00280	0.08070	72.1720
Vendor	0.00170	0.00072	0.03286	0.01284	0.00023	0.00047	0.00838	0.00885	0.00023	0.00233	0.00256	—	26.6982	26.6982	0.00063	0.00378	0.02169	27.8632
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.63. Linear, Drainage, Utilities, & Sub-Grade (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.79720	0.66585	5.61955	9.83994	0.01524	0.18541	—	0.18541	0.17058	—	0.17058	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03369	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.10412	9.10412	0.00088	0.00146	0.01040	9.57018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79720	0.66585	5.61955	9.83994	0.01524	0.18541	—	0.18541	0.17058	—	0.17058	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03580	0.02429	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.18106	9.18106	0.00088	0.00146	0.00027	9.63698
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56943	0.47561	4.01396	7.02853	0.01089	0.13244	—	0.13244	0.12184	—	0.12184	—	1,079.02	1,079.02	0.04377	0.00875	—	1,082.73
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02485	0.01707	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.52603	6.52603	0.00063	0.00104	0.00320	6.85470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10392	0.08680	0.73255	1.28271	0.00199	0.02417	—	0.02417	0.02224	—	0.02224	—	178.645	178.645	0.00725	0.00145	—	179.258

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00453	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.08046	1.08046	0.00010	0.00017	0.00053	1.13487
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16755	0.14495	0.12732	2.39532	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	628.580	628.580	0.00661	0.00331	1.40268	631.133
Vendor	0.01139	0.00568	0.23111	0.09330	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	218.314	218.314	0.00536	0.03182	0.37044	228.300
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16204	0.13834	0.15212	1.91912	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	583.260	583.260	0.00772	0.02370	0.03645	590.552
Vendor	0.01086	0.00533	0.24434	0.09595	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	218.501	218.501	0.00536	0.03199	0.00960	228.179
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11496	0.09803	0.10708	1.43222	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	423.500	423.500	0.00472	0.01693	0.43326	429.096
Vendor	0.00801	0.00393	0.17277	0.06752	0.00128	0.00257	0.04591	0.04848	0.00128	0.01276	0.01405	—	155.995	155.995	0.00383	0.02285	0.11411	163.015
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02098	0.01789	0.01954	0.26138	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	70.1152	70.1152	0.00078	0.00280	0.07173	71.0417
Vendor	0.00146	0.00072	0.03153	0.01232	0.00023	0.00047	0.00838	0.00885	0.00023	0.00233	0.00256	—	25.8267	25.8267	0.00063	0.00378	0.01889	26.9889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.64. Linear, Drainage, Utilities, & Sub-Grade (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79720	0.66585	5.61955	9.83994	0.01524	0.18541	—	0.18541	0.17058	—	0.17058	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03369	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.10412	9.10412	0.00088	0.00146	0.01040	9.57018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79720	0.66585	5.61955	9.83994	0.01524	0.18541	—	0.18541	0.17058	—	0.17058	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03580	0.02429	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.18106	9.18106	0.00088	0.00146	0.00027	9.63698
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56943	0.47561	4.01396	7.02853	0.01089	0.13244	—	0.13244	0.12184	—	0.12184	—	1,079.02	1,079.02	0.04377	0.00875	—	1,082.73
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00180	0.00104	0.02485	0.01707	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.52603	6.52603	0.00063	0.00104	0.00320	6.85470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10392	0.08680	0.73255	1.28271	0.00199	0.02417	—	0.02417	0.02224	—	0.02224	—	178.645	178.645	0.00725	0.00145	—	179.258
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00453	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.08046	1.08046	0.00010	0.00017	0.00053	1.13487
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16755	0.14495	0.12732	2.39532	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	628.580	628.580	0.00661	0.00331	1.40268	631.133
Vendor	0.01139	0.00568	0.23111	0.09330	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	218.314	218.314	0.00536	0.03182	0.37044	228.300
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16204	0.13834	0.15212	1.91912	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	583.260	583.260	0.00772	0.02370	0.03645	590.552
Vendor	0.01086	0.00533	0.24434	0.09595	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	218.501	218.501	0.00536	0.03199	0.00960	228.179
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11496	0.09803	0.10708	1.43222	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	423.500	423.500	0.00472	0.01693	0.43326	429.096
Vendor	0.00801	0.00393	0.17277	0.06752	0.00128	0.00257	0.04591	0.04848	0.00128	0.01276	0.01405	—	155.995	155.995	0.00383	0.02285	0.11411	163.015
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02098	0.01789	0.01954	0.26138	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	70.1152	70.1152	0.00078	0.00280	0.07173	71.0417

Vendor	0.00146	0.00072	0.03153	0.01232	0.00023	0.00047	0.00838	0.00885	0.00023	0.00233	0.00256	—	25.8267	25.8267	0.00063	0.00378	0.01889	26.9889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.65. Linear, Drainage, Utilities, & Sub-Grade (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78108	0.65236	5.49473	9.83088	0.01524	0.17663	—	0.17663	0.16250	—	0.16250	—	1,510.61	1,510.61	0.06128	0.01226	—	1,515.80
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03329	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.91576	8.91576	0.00088	0.00146	0.00933	9.38074
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78108	0.65236	5.49473	9.83088	0.01524	0.17663	—	0.17663	0.16250	—	0.16250	—	1,510.61	1,510.61	0.06128	0.01226	—	1,515.80
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03541	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.99349	8.99349	0.00084	0.00146	0.00024	9.44828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.55944	0.46725	3.93556	7.04130	0.01092	0.12651	—	0.12651	0.11639	—	0.11639	—	1,081.97	1,081.97	0.04389	0.00878	—	1,085.68
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00104	0.02457	0.01715	0.00006	0.00009	0.36748	0.36757	0.00006	0.03676	0.03682	—	6.40922	6.40922	0.00063	0.00104	0.00288	6.73845
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10210	0.08527	0.71824	1.28504	0.00199	0.02309	—	0.02309	0.02124	—	0.02124	—	179.132	179.132	0.00727	0.00145	—	179.747
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00448	0.00313	0.00001	0.00002	0.06706	0.06708	0.00001	0.00671	0.00672	—	1.06112	1.06112	0.00010	0.00017	0.00048	1.11563
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15984	0.13724	0.10582	2.25643	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	619.471	619.471	0.00551	0.00331	1.23645	621.831
Vendor	0.01139	0.00568	0.22268	0.09115	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	211.067	211.067	0.00536	0.03002	0.31899	220.465
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15543	0.13173	0.12952	1.81551	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	574.833	574.833	0.00661	0.02370	0.03208	582.093
Vendor	0.01086	0.00533	0.23626	0.09199	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	211.258	211.258	0.00536	0.03019	0.00826	220.398
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11132	0.09435	0.09198	1.34890	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	418.525	418.525	0.00474	0.00237	0.38223	419.732

Vendor	0.00803	0.00394	0.16604	0.06617	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	151.233	151.233	0.00384	0.02150	0.09839	157.834
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02032	0.01722	0.01679	0.24617	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	69.2916	69.2916	0.00078	0.00039	0.06328	69.4913
Vendor	0.00147	0.00072	0.03030	0.01208	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	25.0383	25.0383	0.00064	0.00356	0.01629	26.1312
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.66. Linear, Drainage, Utilities, & Sub-Grade (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78108	0.65236	5.49473	9.83088	0.01524	0.17663	—	0.17663	0.16250	—	0.16250	—	1,510.61	1,510.61	0.06128	0.01226	—	1,515.80
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03329	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.91576	8.91576	0.00088	0.00146	0.00933	9.38074
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78108	0.65236	5.49473	9.83088	0.01524	0.17663	—	0.17663	0.16250	—	0.16250	—	1,510.61	1,510.61	0.06128	0.01226	—	1,515.80

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03541	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.99349	8.99349	0.00084	0.00146	0.00024	9.44828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55944	0.46725	3.93556	7.04130	0.01092	0.12651	—	0.12651	0.11639	—	0.11639	—	1,081.97	1,081.97	0.04389	0.00878	—	1,085.68
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00104	0.02457	0.01715	0.00006	0.00009	0.36748	0.36757	0.00006	0.03676	0.03682	—	6.40922	6.40922	0.00063	0.00104	0.00288	6.73845
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10210	0.08527	0.71824	1.28504	0.00199	0.02309	—	0.02309	0.02124	—	0.02124	—	179.132	179.132	0.00727	0.00145	—	179.747
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00448	0.00313	0.00001	0.00002	0.06706	0.06708	0.00001	0.00671	0.00672	—	1.06112	1.06112	0.00010	0.00017	0.00048	1.11563
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15984	0.13724	0.10582	2.25643	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	619.471	619.471	0.00551	0.00331	1.23645	621.831
Vendor	0.01139	0.00568	0.22268	0.09115	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	211.067	211.067	0.00536	0.03002	0.31899	220.465
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15543	0.13173	0.12952	1.81551	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	574.833	574.833	0.00661	0.02370	0.03208	582.093
Vendor	0.01086	0.00533	0.23626	0.09199	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	211.258	211.258	0.00536	0.03019	0.00826	220.398
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11132	0.09435	0.09198	1.34890	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	418.525	418.525	0.00474	0.00237	0.38223	419.732
Vendor	0.00803	0.00394	0.16604	0.06617	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	151.233	151.233	0.00384	0.02150	0.09839	157.834
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02032	0.01722	0.01679	0.24617	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	69.2916	69.2916	0.00078	0.00039	0.06328	69.4913
Vendor	0.00147	0.00072	0.03030	0.01208	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	25.0383	25.0383	0.00064	0.00356	0.01629	26.1312
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.67. Linear, Drainage, Utilities, & Sub-Grade (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76766	0.64112	5.38983	9.82092	0.01524	0.16667	—	0.16667	0.15333	—	0.15333	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00251	0.00154	0.03285	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.74600	8.74600	0.00084	0.00141	0.00820	9.19561
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76766	0.64112	5.38983	9.82092	0.01524	0.16667	—	0.16667	0.15333	—	0.15333	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03497	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.82458	8.82458	0.00084	0.00141	0.00021	9.26620
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54833	0.45794	3.84988	7.01494	0.01089	0.11905	—	0.11905	0.10952	—	0.10952	—	1,079.02	1,079.02	0.04377	0.00875	—	1,082.73
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02419	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.27073	6.27073	0.00060	0.00101	0.00254	6.58856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10007	0.08357	0.70260	1.28023	0.00199	0.02173	—	0.02173	0.01999	—	0.01999	—	178.645	178.645	0.00725	0.00145	—	179.258
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00441	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.03819	1.03819	0.00010	0.00017	0.00042	1.09081

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13393	0.13173	0.10472	2.14014	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	611.332	611.332	0.00551	0.00331	1.08773	613.543
Vendor	0.01122	0.00550	0.21461	0.08737	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	204.085	204.085	0.00536	0.03002	0.27269	213.437
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13062	0.12732	0.12842	1.71299	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.275	567.275	0.00661	0.00331	0.02817	568.454
Vendor	0.01086	0.00533	0.22621	0.09002	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	204.279	204.279	0.00536	0.03002	0.00707	213.366
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09173	0.09015	0.07637	1.27356	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	411.899	411.899	0.00472	0.00236	0.33536	413.056
Vendor	0.00789	0.00393	0.15969	0.06329	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	145.833	145.833	0.00383	0.02144	0.08397	152.403
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01674	0.01645	0.01394	0.23243	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	68.1946	68.1946	0.00078	0.00039	0.05552	68.3862
Vendor	0.00144	0.00072	0.02914	0.01155	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	24.1444	24.1444	0.00063	0.00355	0.01390	25.2320
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.68. Linear, Drainage, Utilities, & Sub-Grade (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.76766	0.64112	5.38983	9.82092	0.01524	0.16667	—	0.16667	0.15333	—	0.15333	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03285	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.74600	8.74600	0.00084	0.00141	0.00820	9.19561
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76766	0.64112	5.38983	9.82092	0.01524	0.16667	—	0.16667	0.15333	—	0.15333	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.82
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03497	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.82458	8.82458	0.00084	0.00141	0.00021	9.26620
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54833	0.45794	3.84988	7.01494	0.01089	0.11905	—	0.11905	0.10952	—	0.10952	—	1,079.02	1,079.02	0.04377	0.00875	—	1,082.73
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02419	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.27073	6.27073	0.00060	0.00101	0.00254	6.58856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10007	0.08357	0.70260	1.28023	0.00199	0.02173	—	0.02173	0.01999	—	0.01999	—	178.645	178.645	0.00725	0.00145	—	179.258

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00441	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.03819	1.03819	0.00010	0.00017	0.00042	1.09081
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13393	0.13173	0.10472	2.14014	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	611.332	611.332	0.00551	0.00331	1.08773	613.543
Vendor	0.01122	0.00550	0.21461	0.08737	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	204.085	204.085	0.00536	0.03002	0.27269	213.437
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13062	0.12732	0.12842	1.71299	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.275	567.275	0.00661	0.00331	0.02817	568.454
Vendor	0.01086	0.00533	0.22621	0.09002	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	204.279	204.279	0.00536	0.03002	0.00707	213.366
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09173	0.09015	0.07637	1.27356	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	411.899	411.899	0.00472	0.00236	0.33536	413.056
Vendor	0.00789	0.00393	0.15969	0.06329	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	145.833	145.833	0.00383	0.02144	0.08397	152.403
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01674	0.01645	0.01394	0.23243	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	68.1946	68.1946	0.00078	0.00039	0.05552	68.3862
Vendor	0.00144	0.00072	0.02914	0.01155	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	24.1444	24.1444	0.00063	0.00355	0.01390	25.2320
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.69. Linear, Drainage, Utilities, & Sub-Grade (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75480	0.63034	5.30130	9.81383	0.01524	0.15841	—	0.15841	0.14574	—	0.14574	—	1,510.66	1,510.66	0.06128	0.01226	—	1,515.84
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03254	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.59529	8.59529	0.00084	0.00141	0.00719	9.04389
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75480	0.63034	5.30130	9.81383	0.01524	0.15841	—	0.15841	0.14574	—	0.14574	—	1,510.66	1,510.66	0.06128	0.01226	—	1,515.84
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00137	0.03466	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.67466	8.67466	0.00079	0.00141	0.00019	9.11515
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53915	0.45024	3.78664	7.00988	0.01089	0.11315	—	0.11315	0.10410	—	0.10410	—	1,079.04	1,079.04	0.04377	0.00875	—	1,082.74
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00173	0.00104	0.02400	0.01710	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.16331	6.16331	0.00060	0.00101	0.00221	6.48081
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09839	0.08217	0.69106	1.27930	0.00199	0.02065	—	0.02065	0.01900	—	0.01900	—	178.647	178.647	0.00725	0.00145	—	179.260
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00438	0.00312	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.02041	1.02041	0.00010	0.00017	0.00037	1.07297
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12732	0.12511	0.08322	2.02384	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	603.772	603.772	0.00551	0.00331	0.94775	605.843
Vendor	0.01104	0.00550	0.20815	0.08540	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	197.413	197.413	0.00519	0.02822	0.23153	206.183
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12401	0.12070	0.10692	1.61158	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	560.256	560.256	0.00661	0.00331	0.02455	561.431
Vendor	0.01086	0.00515	0.21993	0.08804	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	197.610	197.610	0.00519	0.02822	0.00602	206.155
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08858	0.08700	0.07559	1.20270	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	406.815	406.815	0.00394	0.00236	0.29162	407.909
Vendor	0.00789	0.00380	0.15521	0.06175	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	141.068	141.068	0.00370	0.02016	0.07148	147.239
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01617	0.01588	0.01379	0.21949	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	67.3528	67.3528	0.00065	0.00039	0.04828	67.5339

Vendor	0.00144	0.00069	0.02832	0.01127	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	23.3555	23.3555	0.00061	0.00334	0.01183	24.3771
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.70. Linear, Drainage, Utilities, & Sub-Grade (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75480	0.63034	5.30130	9.81383	0.01524	0.15841	—	0.15841	0.14574	—	0.14574	—	1,510.66	1,510.66	0.06128	0.01226	—	1,515.84
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03254	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.59529	8.59529	0.00084	0.00141	0.00719	9.04389
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75480	0.63034	5.30130	9.81383	0.01524	0.15841	—	0.15841	0.14574	—	0.14574	—	1,510.66	1,510.66	0.06128	0.01226	—	1,515.84
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00137	0.03466	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.67466	8.67466	0.00079	0.00141	0.00019	9.11515
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.53915	0.45024	3.78664	7.00988	0.01089	0.11315	—	0.11315	0.10410	—	0.10410	—	1,079.04	1,079.04	0.04377	0.00875	—	1,082.74
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02400	0.01710	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.16331	6.16331	0.00060	0.00101	0.00221	6.48081
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09839	0.08217	0.69106	1.27930	0.00199	0.02065	—	0.02065	0.01900	—	0.01900	—	178.647	178.647	0.00725	0.00145	—	179.260
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00438	0.00312	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.02041	1.02041	0.00010	0.00017	0.00037	1.07297
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12732	0.12511	0.08322	2.02384	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	603.772	603.772	0.00551	0.00331	0.94775	605.843
Vendor	0.01104	0.00550	0.20815	0.08540	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	197.413	197.413	0.00519	0.02822	0.23153	206.183
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12401	0.12070	0.10692	1.61158	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	560.256	560.256	0.00661	0.00331	0.02455	561.431
Vendor	0.01086	0.00515	0.21993	0.08804	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	197.610	197.610	0.00519	0.02822	0.00602	206.155
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08858	0.08700	0.07559	1.20270	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	406.815	406.815	0.00394	0.00236	0.29162	407.909

Vendor	0.00789	0.00380	0.15521	0.06175	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	141.068	141.068	0.00370	0.02016	0.07148	147.239
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01617	0.01588	0.01379	0.21949	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	67.3528	67.3528	0.00065	0.00039	0.04828	67.5339
Vendor	0.00144	0.00069	0.02832	0.01127	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	23.3555	23.3555	0.00061	0.00334	0.01183	24.3771
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.71. Linear, Drainage, Utilities, & Sub-Grade (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74466	0.62183	5.23203	9.80931	0.01524	0.15061	—	0.15061	0.13856	—	0.13856	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03223	0.02372	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.46346	8.46346	0.00075	0.00137	0.00620	8.89573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74466	0.62183	5.23203	9.80931	0.01524	0.15061	—	0.15061	0.13856	—	0.13856	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00225	0.00137	0.03439	0.02438	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.54357	8.54357	0.00075	0.00137	0.00016	8.96980
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53190	0.44416	3.73717	7.00665	0.01089	0.10758	—	0.10758	0.09897	—	0.09897	—	1,079.04	1,079.04	0.04377	0.00875	—	1,082.74
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00170	0.00104	0.02378	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.06936	6.06936	0.00054	0.00098	0.00191	6.37560
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09707	0.08106	0.68203	1.27871	0.00199	0.01963	—	0.01963	0.01806	—	0.01806	—	178.647	178.647	0.00725	0.00145	—	179.260
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00434	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.00485	1.00485	0.00009	0.00016	0.00032	1.05555
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12511	0.12291	0.08322	1.93015	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	597.020	597.020	0.00441	0.00331	0.82236	598.938
Vendor	0.01104	0.00550	0.20007	0.08342	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	191.113	191.113	0.00519	0.02822	0.19526	199.847
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11850	0.10692	1.53387	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	553.984	553.984	0.00551	0.00331	0.02129	555.128
Vendor	0.01086	0.00515	0.21365	0.08589	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	191.312	191.312	0.00519	0.02822	0.00507	199.857
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08700	0.08543	0.07480	1.14877	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	402.264	402.264	0.00394	0.00236	0.25412	403.321
Vendor	0.00776	0.00380	0.14944	0.06034	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	136.569	136.569	0.00370	0.02016	0.06027	142.729
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01588	0.01559	0.01365	0.20965	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	66.5994	66.5994	0.00065	0.00039	0.04207	66.7743
Vendor	0.00142	0.00069	0.02727	0.01101	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	22.6106	22.6106	0.00061	0.00334	0.00998	23.6303
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.72. Linear, Drainage, Utilities, & Sub-Grade (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74466	0.62183	5.23203	9.80931	0.01524	0.15061	—	0.15061	0.13856	—	0.13856	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00251	0.00154	0.03223	0.02372	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.46346	8.46346	0.00075	0.00137	0.00620	8.89573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74466	0.62183	5.23203	9.80931	0.01524	0.15061	—	0.15061	0.13856	—	0.13856	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00225	0.00137	0.03439	0.02438	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.54357	8.54357	0.00075	0.00137	0.00016	8.96980
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53190	0.44416	3.73717	7.00665	0.01089	0.10758	—	0.10758	0.09897	—	0.09897	—	1,079.04	1,079.04	0.04377	0.00875	—	1,082.74
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00170	0.00104	0.02378	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.06936	6.06936	0.00054	0.00098	0.00191	6.37560
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09707	0.08106	0.68203	1.27871	0.00199	0.01963	—	0.01963	0.01806	—	0.01806	—	178.647	178.647	0.00725	0.00145	—	179.260
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00434	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.00485	1.00485	0.00009	0.00016	0.00032	1.05555

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12511	0.12291	0.08322	1.93015	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	597.020	597.020	0.00441	0.00331	0.82236	598.938
Vendor	0.01104	0.00550	0.20007	0.08342	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	191.113	191.113	0.00519	0.02822	0.19526	199.847
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11850	0.10692	1.53387	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	553.984	553.984	0.00551	0.00331	0.02129	555.128
Vendor	0.01086	0.00515	0.21365	0.08589	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	191.312	191.312	0.00519	0.02822	0.00507	199.857
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08700	0.08543	0.07480	1.14877	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	402.264	402.264	0.00394	0.00236	0.25412	403.321
Vendor	0.00776	0.00380	0.14944	0.06034	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	136.569	136.569	0.00370	0.02016	0.06027	142.729
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01588	0.01559	0.01365	0.20965	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	66.5994	66.5994	0.00065	0.00039	0.04207	66.7743
Vendor	0.00142	0.00069	0.02727	0.01101	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	22.6106	22.6106	0.00061	0.00334	0.00998	23.6303
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.73. Linear, Drainage, Utilities, & Sub-Grade (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.73352	0.61247	5.12337	9.80482	0.01524	0.14327	—	0.14327	0.13181	—	0.13181	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00154	0.03192	0.02377	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.34807	8.34807	0.00075	0.00132	0.00534	8.76633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73352	0.61247	5.12337	9.80482	0.01524	0.14327	—	0.14327	0.13181	—	0.13181	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03413	0.02443	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.42893	8.42893	0.00075	0.00137	0.00014	8.85514
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52538	0.43868	3.66958	7.02263	0.01092	0.10262	—	0.10262	0.09441	—	0.09441	—	1,081.99	1,081.99	0.04389	0.00878	—	1,085.70
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00104	0.02362	0.01724	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	6.00356	6.00356	0.00054	0.00098	0.00165	6.31038
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09588	0.08006	0.66970	1.28163	0.00199	0.01873	—	0.01873	0.01723	—	0.01723	—	179.136	179.136	0.00727	0.00145	—	179.750

Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00431	0.00315	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.99396	0.99396	0.00009	0.00016	0.00027	1.04476
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11960	0.08212	1.83645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	591.029	591.029	0.00441	0.00331	0.70863	592.833
Vendor	0.00924	0.00550	0.19559	0.08162	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	185.339	185.339	0.00339	0.02822	0.16336	193.996
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11850	0.11629	0.10582	1.45726	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	548.413	548.413	0.00551	0.00331	0.01837	549.554
Vendor	0.00871	0.00515	0.20755	0.08392	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	185.541	185.541	0.00339	0.02822	0.00424	194.039
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08487	0.08329	0.06040	1.09783	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	399.305	399.305	0.00395	0.00237	0.21931	400.329
Vendor	0.00649	0.00381	0.14547	0.05922	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	132.809	132.809	0.00243	0.02021	0.05049	138.943
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01549	0.01520	0.01102	0.20035	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	66.1095	66.1095	0.00065	0.00039	0.03631	66.2791
Vendor	0.00118	0.00070	0.02655	0.01081	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	21.9880	21.9880	0.00040	0.00335	0.00836	23.0036
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.74. Linear, Drainage, Utilities, & Sub-Grade (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73352	0.61247	5.12337	9.80482	0.01524	0.14327	—	0.14327	0.13181	—	0.13181	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00154	0.03192	0.02377	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.34807	8.34807	0.00075	0.00132	0.00534	8.76633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73352	0.61247	5.12337	9.80482	0.01524	0.14327	—	0.14327	0.13181	—	0.13181	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03413	0.02443	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.42893	8.42893	0.00075	0.00137	0.00014	8.85514
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52538	0.43868	3.66958	7.02263	0.01092	0.10262	—	0.10262	0.09441	—	0.09441	—	1,081.99	1,081.99	0.04389	0.00878	—	1,085.70
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—

Onsite truck	0.00167	0.00104	0.02362	0.01724	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	6.00356	6.00356	0.00054	0.00098	0.00165	6.31038
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09588	0.08006	0.66970	1.28163	0.00199	0.01873	—	0.01873	0.01723	—	0.01723	—	179.136	179.136	0.00727	0.00145	—	179.750
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00431	0.00315	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.99396	0.99396	0.00009	0.00016	0.00027	1.04476
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11960	0.08212	1.83645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	591.029	591.029	0.00441	0.00331	0.70863	592.833
Vendor	0.00924	0.00550	0.19559	0.08162	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	185.339	185.339	0.00339	0.02822	0.16336	193.996
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11850	0.11629	0.10582	1.45726	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	548.413	548.413	0.00551	0.00331	0.01837	549.554
Vendor	0.00871	0.00515	0.20755	0.08392	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	185.541	185.541	0.00339	0.02822	0.00424	194.039
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08487	0.08329	0.06040	1.09783	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	399.305	399.305	0.00395	0.00237	0.21931	400.329
Vendor	0.00649	0.00381	0.14547	0.05922	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	132.809	132.809	0.00243	0.02021	0.05049	138.943
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01549	0.01520	0.01102	0.20035	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	66.1095	66.1095	0.00065	0.00039	0.03631	66.2791

Vendor	0.00118	0.00070	0.02655	0.01081	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	21.9880	21.9880	0.00040	0.00335	0.00836	23.0036
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.75. Linear, Drainage, Utilities, & Sub-Grade (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72316	0.60379	5.03394	9.79093	0.01524	0.13646	—	0.13646	0.12554	—	0.12554	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03170	0.02381	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25142	8.25142	0.00071	0.00132	0.00458	8.66782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72316	0.60379	5.03394	9.79093	0.01524	0.13646	—	0.13646	0.12554	—	0.12554	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03386	0.02452	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.33299	8.33299	0.00071	0.00137	0.00012	8.75807
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.51655	0.43128	3.59567	6.99352	0.01089	0.09747	—	0.09747	0.08967	—	0.08967	—	1,079.03	1,079.03	0.04377	0.00875	—	1,082.73
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02340	0.01723	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.91834	5.91834	0.00050	0.00098	0.00141	6.22330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09427	0.07871	0.65621	1.27632	0.00199	0.01779	—	0.01779	0.01637	—	0.01637	—	178.646	178.646	0.00725	0.00145	—	179.259
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00427	0.00314	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97985	0.97985	0.00008	0.00016	0.00023	1.03034
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11740	0.11519	0.08212	1.76645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	585.661	585.661	0.00441	0.00331	0.60948	587.367
Vendor	0.00924	0.00550	0.18949	0.07965	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	180.226	180.226	0.00339	0.02642	0.13557	188.319
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11409	0.11188	0.08433	1.40324	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	543.405	543.405	0.00551	0.00331	0.01578	544.544
Vendor	0.00871	0.00515	0.20127	0.08212	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	180.430	180.430	0.00339	0.02642	0.00352	188.392
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08149	0.07992	0.05945	1.04247	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	394.596	394.596	0.00394	0.00236	0.18768	395.586

Vendor	0.00648	0.00380	0.14188	0.05777	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	128.794	128.794	0.00242	0.01887	0.04190	134.520
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01487	0.01458	0.01085	0.19025	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	65.3298	65.3298	0.00065	0.00039	0.03107	65.4937
Vendor	0.00118	0.00069	0.02589	0.01054	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	21.3233	21.3233	0.00040	0.00312	0.00694	22.2713
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.76. Linear, Drainage, Utilities, & Sub-Grade (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72316	0.60379	5.03394	9.79093	0.01524	0.13646	—	0.13646	0.12554	—	0.12554	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03170	0.02381	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25142	8.25142	0.00071	0.00132	0.00458	8.66782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72316	0.60379	5.03394	9.79093	0.01524	0.13646	—	0.13646	0.12554	—	0.12554	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03386	0.02452	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.33299	8.33299	0.00071	0.00137	0.00012	8.75807
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51655	0.43128	3.59567	6.99352	0.01089	0.09747	—	0.09747	0.08967	—	0.08967	—	1,079.03	1,079.03	0.04377	0.00875	—	1,082.73
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02340	0.01723	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.91834	5.91834	0.00050	0.00098	0.00141	6.22330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09427	0.07871	0.65621	1.27632	0.00199	0.01779	—	0.01779	0.01637	—	0.01637	—	178.646	178.646	0.00725	0.00145	—	179.259
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00427	0.00314	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97985	0.97985	0.00008	0.00016	0.00023	1.03034
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11740	0.11519	0.08212	1.76645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	585.661	585.661	0.00441	0.00331	0.60948	587.367
Vendor	0.00924	0.00550	0.18949	0.07965	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	180.226	180.226	0.00339	0.02642	0.13557	188.319
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11409	0.11188	0.08433	1.40324	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	543.405	543.405	0.00551	0.00331	0.01578	544.544
Vendor	0.00871	0.00515	0.20127	0.08212	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	180.430	180.430	0.00339	0.02642	0.00352	188.392
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08149	0.07992	0.05945	1.04247	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	394.596	394.596	0.00394	0.00236	0.18768	395.586
Vendor	0.00648	0.00380	0.14188	0.05777	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	128.794	128.794	0.00242	0.01887	0.04190	134.520
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01487	0.01458	0.01085	0.19025	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	65.3298	65.3298	0.00065	0.00039	0.03107	65.4937
Vendor	0.00118	0.00069	0.02589	0.01054	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	21.3233	21.3233	0.00040	0.00312	0.00694	22.2713
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.77. Linear, Drainage, Utilities, & Sub-Grade (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71515	0.59706	4.94331	9.78349	0.01524	0.13172	—	0.13172	0.12118	—	0.12118	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00243	0.00159	0.03148	0.02390	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.16786	8.16786	0.00071	0.00128	0.00393	8.57048
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71515	0.59706	4.94331	9.78349	0.01524	0.13172	—	0.13172	0.12118	—	0.12118	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03373	0.02456	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25014	8.25014	0.00071	0.00132	0.00010	8.66206
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51082	0.42647	3.53094	6.98821	0.01089	0.09408	—	0.09408	0.08656	—	0.08656	—	1,079.03	1,079.03	0.04377	0.00875	—	1,082.74
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02327	0.01726	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.85888	5.85888	0.00050	0.00091	0.00121	6.14486
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09323	0.07783	0.64440	1.27535	0.00199	0.01717	—	0.01717	0.01580	—	0.01580	—	178.646	178.646	0.00725	0.00145	—	179.259
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00425	0.00315	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97000	0.97000	0.00008	0.00015	0.00020	1.01735

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10968	0.08102	1.69646	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	580.914	580.914	0.00441	0.00331	0.52199	582.532
Vendor	0.00924	0.00550	0.18519	0.07965	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	175.590	175.590	0.00339	0.02642	0.11139	183.659
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10858	0.08433	1.35143	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	538.979	538.979	0.00551	0.00331	0.01350	540.116
Vendor	0.00871	0.00515	0.19732	0.08212	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	175.797	175.797	0.00339	0.02642	0.00288	183.758
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07834	0.07756	0.05945	1.00625	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	391.392	391.392	0.00315	0.00236	0.16081	392.335
Vendor	0.00648	0.00380	0.13880	0.05765	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	125.484	125.484	0.00242	0.01887	0.03436	131.202
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01430	0.01415	0.01085	0.18364	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.7994	64.7994	0.00052	0.00039	0.02662	64.9556
Vendor	0.00118	0.00069	0.02533	0.01052	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	20.7752	20.7752	0.00040	0.00312	0.00569	21.7220
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.78. Linear, Drainage, Utilities, & Sub-Grade (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.71515	0.59706	4.94331	9.78349	0.01524	0.13172	—	0.13172	0.12118	—	0.12118	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03148	0.02390	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.16786	8.16786	0.00071	0.00128	0.00393	8.57048
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71515	0.59706	4.94331	9.78349	0.01524	0.13172	—	0.13172	0.12118	—	0.12118	—	1,510.65	1,510.65	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03373	0.02456	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25014	8.25014	0.00071	0.00132	0.00010	8.66206
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51082	0.42647	3.53094	6.98821	0.01089	0.09408	—	0.09408	0.08656	—	0.08656	—	1,079.03	1,079.03	0.04377	0.00875	—	1,082.74
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02327	0.01726	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.85888	5.85888	0.00050	0.00091	0.00121	6.14486
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09323	0.07783	0.64440	1.27535	0.00199	0.01717	—	0.01717	0.01580	—	0.01580	—	178.646	178.646	0.00725	0.00145	—	179.259

Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00425	0.00315	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97000	0.97000	0.00008	0.00015	0.00020	1.01735
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10968	0.08102	1.69646	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	580.914	580.914	0.00441	0.00331	0.52199	582.532
Vendor	0.00924	0.00550	0.18519	0.07965	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	175.590	175.590	0.00339	0.02642	0.11139	183.659
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10858	0.08433	1.35143	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	538.979	538.979	0.00551	0.00331	0.01350	540.116
Vendor	0.00871	0.00515	0.19732	0.08212	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	175.797	175.797	0.00339	0.02642	0.00288	183.758
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07834	0.07756	0.05945	1.00625	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	391.392	391.392	0.00315	0.00236	0.16081	392.335
Vendor	0.00648	0.00380	0.13880	0.05765	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	125.484	125.484	0.00242	0.01887	0.03436	131.202
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01430	0.01415	0.01085	0.18364	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.7994	64.7994	0.00052	0.00039	0.02662	64.9556
Vendor	0.00118	0.00069	0.02533	0.01052	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	20.7752	20.7752	0.00040	0.00312	0.00569	21.7220
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.79. Linear, Drainage, Utilities, & Sub-Grade (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70877	0.59169	4.86224	9.77792	0.01524	0.12736	—	0.12736	0.11717	—	0.11717	—	1,510.62	1,510.62	0.06128	0.01226	—	1,515.81
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03126	0.02394	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.09837	8.09837	0.00066	0.00128	0.00337	8.49932
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70877	0.59169	4.86224	9.77792	0.01524	0.12736	—	0.12736	0.11717	—	0.11717	—	1,510.62	1,510.62	0.06128	0.01226	—	1,515.81
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03351	0.02460	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.18135	8.18135	0.00066	0.00132	0.00009	8.59216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50626	0.42264	3.47303	6.98423	0.01089	0.09097	—	0.09097	0.08370	—	0.08370	—	1,079.02	1,079.02	0.04377	0.00875	—	1,082.72
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—

Onsite truck	0.00164	0.00107	0.02312	0.01729	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.80943	5.80943	0.00047	0.00091	0.00104	6.09446
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09239	0.07713	0.63383	1.27462	0.00199	0.01660	—	0.01660	0.01527	—	0.01527	—	178.643	178.643	0.00725	0.00145	—	179.257
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00316	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.96182	0.96182	0.00008	0.00015	0.00017	1.00901
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10637	0.10527	0.06063	1.64796	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	576.766	576.766	0.00441	0.00331	0.44326	578.305
Vendor	0.00924	0.00568	0.18286	0.07767	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	171.512	171.512	0.00321	0.02642	0.09030	179.556
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10527	0.10307	0.08322	1.29963	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	535.091	535.091	0.00441	0.00331	0.01152	536.198
Vendor	0.00871	0.00515	0.19302	0.08014	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	171.721	171.721	0.00321	0.02642	0.00234	179.677
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07441	0.07362	0.05866	0.97082	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	388.572	388.572	0.00315	0.00236	0.13706	389.492
Vendor	0.00648	0.00393	0.13586	0.05636	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	122.572	122.572	0.00229	0.01887	0.02775	128.280
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01358	0.01344	0.01071	0.17717	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.3326	64.3326	0.00052	0.00039	0.02269	64.4848

Vendor	0.00118	0.00072	0.02479	0.01029	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	20.2931	20.2931	0.00038	0.00312	0.00459	21.2383
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.80. Linear, Drainage, Utilities, & Sub-Grade (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70877	0.59169	4.86224	9.77792	0.01524	0.12736	—	0.12736	0.11717	—	0.11717	—	1,510.62	1,510.62	0.06128	0.01226	—	1,515.81
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03126	0.02394	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.09837	8.09837	0.00066	0.00128	0.00337	8.49932
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70877	0.59169	4.86224	9.77792	0.01524	0.12736	—	0.12736	0.11717	—	0.11717	—	1,510.62	1,510.62	0.06128	0.01226	—	1,515.81
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03351	0.02460	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.18135	8.18135	0.00066	0.00132	0.00009	8.59216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.50626	0.42264	3.47303	6.98423	0.01089	0.09097	—	0.09097	0.08370	—	0.08370	—	1,079.02	1,079.02	0.04377	0.00875	—	1,082.72
Dust From Material Movement	—	—	—	—	—	—	0.09848	0.09848	—	0.01063	0.01063	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01729	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.80943	5.80943	0.00047	0.00091	0.00104	6.09446
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09239	0.07713	0.63383	1.27462	0.00199	0.01660	—	0.01660	0.01527	—	0.01527	—	178.643	178.643	0.00725	0.00145	—	179.257
Dust From Material Movement	—	—	—	—	—	—	0.01797	0.01797	—	0.00194	0.00194	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00316	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.96182	0.96182	0.00008	0.00015	0.00017	1.00901
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10637	0.10527	0.06063	1.64796	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	576.766	576.766	0.00441	0.00331	0.44326	578.305
Vendor	0.00924	0.00568	0.18286	0.07767	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	171.512	171.512	0.00321	0.02642	0.09030	179.556
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10527	0.10307	0.08322	1.29963	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	535.091	535.091	0.00441	0.00331	0.01152	536.198
Vendor	0.00871	0.00515	0.19302	0.08014	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	171.721	171.721	0.00321	0.02642	0.00234	179.677
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07441	0.07362	0.05866	0.97082	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	388.572	388.572	0.00315	0.00236	0.13706	389.492

Vendor	0.00648	0.00393	0.13586	0.05636	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	122.572	122.572	0.00229	0.01887	0.02775	128.280
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01358	0.01344	0.01071	0.17717	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.3326	64.3326	0.00052	0.00039	0.02269	64.4848
Vendor	0.00118	0.00072	0.02479	0.01029	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	20.2931	20.2931	0.00038	0.00312	0.00459	21.2383
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.81. Linear, Drainage, Utilities, & Sub-Grade (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70470	0.58827	4.80030	9.77496	0.01524	0.12576	—	0.12576	0.11570	—	0.11570	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03117	0.02399	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.03964	8.03964	0.00066	0.00128	0.00288	8.44010
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70470	0.58827	4.80030	9.77496	0.01524	0.12576	—	0.12576	0.11570	—	0.11570	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83

Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03342	0.02465	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.12337	8.12337	0.00066	0.00132	0.00008	8.53417
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50474	0.42134	3.43818	7.00124	0.01092	0.09007	—	0.09007	0.08287	—	0.08287	—	1,081.99	1,081.99	0.04389	0.00878	—	1,085.70
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01737	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	5.78350	5.78350	0.00047	0.00092	0.00089	6.06916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09211	0.07690	0.62747	1.27773	0.00199	0.01644	—	0.01644	0.01512	—	0.01512	—	179.135	179.135	0.00727	0.00145	—	179.750
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00317	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.95753	0.95753	0.00008	0.00015	0.00015	1.00482
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.05952	1.60166	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	573.137	573.137	0.00331	0.00331	0.37910	574.584
Vendor	0.00907	0.00550	0.17856	0.07605	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	167.853	167.853	0.00321	0.02462	0.07229	175.342
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.08322	1.27152	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	531.702	531.702	0.00441	0.00331	0.00980	532.807
Vendor	0.00854	0.00497	0.19069	0.07834	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	168.064	168.064	0.00321	0.02462	0.00187	175.483
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07145	0.05606	0.05882	0.95335	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	387.182	387.182	0.00316	0.00237	0.11697	388.084
Vendor	0.00624	0.00381	0.13327	0.05510	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	120.287	120.287	0.00230	0.01763	0.02229	125.622
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01304	0.01023	0.01073	0.17399	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	64.1024	64.1024	0.00052	0.00039	0.01937	64.2517
Vendor	0.00114	0.00070	0.02432	0.01006	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	19.9148	19.9148	0.00038	0.00292	0.00369	20.7981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.82. Linear, Drainage, Utilities, & Sub-Grade (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70470	0.58827	4.80030	9.77496	0.01524	0.12576	—	0.12576	0.11570	—	0.11570	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—

Onsite truck	0.00243	0.00159	0.03117	0.02399	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.03964	8.03964	0.00066	0.00128	0.00288	8.44010
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70470	0.58827	4.80030	9.77496	0.01524	0.12576	—	0.12576	0.11570	—	0.11570	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03342	0.02465	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.12337	8.12337	0.00066	0.00132	0.00008	8.53417
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50474	0.42134	3.43818	7.00124	0.01092	0.09007	—	0.09007	0.08287	—	0.08287	—	1,081.99	1,081.99	0.04389	0.00878	—	1,085.70
Dust From Material Movement	—	—	—	—	—	—	0.09874	0.09874	—	0.01066	0.01066	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01737	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	5.78350	5.78350	0.00047	0.00092	0.00089	6.06916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09211	0.07690	0.62747	1.27773	0.00199	0.01644	—	0.01644	0.01512	—	0.01512	—	179.135	179.135	0.00727	0.00145	—	179.750
Dust From Material Movement	—	—	—	—	—	—	0.01802	0.01802	—	0.00195	0.00195	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00317	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.95753	0.95753	0.00008	0.00015	0.00015	1.00482

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.05952	1.60166	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	573.137	573.137	0.00331	0.00331	0.37910	574.584
Vendor	0.00907	0.00550	0.17856	0.07605	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	167.853	167.853	0.00321	0.02462	0.07229	175.342
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.08322	1.27152	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	531.702	531.702	0.00441	0.00331	0.00980	532.807
Vendor	0.00854	0.00497	0.19069	0.07834	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	168.064	168.064	0.00321	0.02462	0.00187	175.483
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07145	0.05606	0.05882	0.95335	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	387.182	387.182	0.00316	0.00237	0.11697	388.084
Vendor	0.00624	0.00381	0.13327	0.05510	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	120.287	120.287	0.00230	0.01763	0.02229	125.622
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01304	0.01023	0.01073	0.17399	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	64.1024	64.1024	0.00052	0.00039	0.01937	64.2517
Vendor	0.00114	0.00070	0.02432	0.01006	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	19.9148	19.9148	0.00038	0.00292	0.00369	20.7981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.83. Linear, Drainage, Utilities, & Sub-Grade (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.70080	0.58499	4.75186	9.77139	0.01524	0.12242	—	0.12242	0.11262	—	0.11262	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03236	0.02526	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	7.99092	7.99092	0.00066	0.00128	0.00248	8.39098
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70080	0.58499	4.75186	9.77139	0.01524	0.12242	—	0.12242	0.11262	—	0.11262	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00141	0.03333	0.02478	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.07540	8.07540	0.00066	0.00132	0.00006	8.48619
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24549	0.20492	1.66455	3.42285	0.00534	0.04288	—	0.04288	0.03945	—	0.03945	—	529.169	529.169	0.02147	0.00429	—	530.985
Dust From Material Movement	—	—	—	—	—	—	0.04829	0.04829	—	0.00521	0.00521	—	—	—	—	—	—	—
Onsite truck	0.00080	0.00053	0.01124	0.00854	0.00003	0.00003	0.17972	0.17975	0.00003	0.01798	0.01801	—	2.81160	2.81160	0.00023	0.00045	0.00038	2.95125
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04480	0.03740	0.30378	0.62467	0.00097	0.00783	—	0.00783	0.00720	—	0.00720	—	87.6099	87.6099	0.00355	0.00071	—	87.9106

Dust From Material Movement	—	—	—	—	—	—	0.00881	0.00881	—	0.00095	0.00095	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00205	0.00156	0.00001	0.00001	0.03280	0.03281	0.00001	0.00328	0.00329	—	0.46549	0.46549	0.00004	0.00007	0.00006	0.48861
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09866	0.07606	0.05952	1.55536	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	569.820	569.820	0.00331	0.00331	0.32078	571.209
Vendor	0.00924	0.00568	0.18300	0.08067	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	164.573	164.573	0.00321	0.02462	0.05762	172.048
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09755	0.07496	0.08212	1.24341	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	528.605	528.605	0.00441	0.00331	0.00834	529.709
Vendor	0.00854	0.00497	0.18656	0.07834	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	164.786	164.786	0.00321	0.02462	0.00149	172.205
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03417	0.02664	0.02124	0.44965	0.00000	0.00000	0.21235	0.21235	0.00000	0.04952	0.04952	—	188.261	188.261	0.00154	0.00116	0.04862	188.693
Vendor	0.00305	0.00187	0.06436	0.02701	0.00063	0.00063	0.02251	0.02314	0.00063	0.00626	0.00689	—	57.6803	57.6803	0.00112	0.00862	0.00871	60.2872
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00624	0.00486	0.00388	0.08206	0.00000	0.00000	0.03875	0.03875	0.00000	0.00904	0.00904	—	31.1687	31.1687	0.00026	0.00019	0.00805	31.2403
Vendor	0.00056	0.00034	0.01175	0.00493	0.00012	0.00012	0.00411	0.00422	0.00012	0.00114	0.00126	—	9.54962	9.54962	0.00019	0.00143	0.00144	9.98124
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.84. Linear, Drainage, Utilities, & Sub-Grade (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70080	0.58499	4.75186	9.77139	0.01524	0.12242	—	0.12242	0.11262	—	0.11262	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03236	0.02526	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	7.99092	7.99092	0.00066	0.00128	0.00248	8.39098
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70080	0.58499	4.75186	9.77139	0.01524	0.12242	—	0.12242	0.11262	—	0.11262	—	1,510.64	1,510.64	0.06128	0.01226	—	1,515.83
Dust From Material Movement	—	—	—	—	—	—	0.13787	0.13787	—	0.01489	0.01489	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00141	0.03333	0.02478	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.07540	8.07540	0.00066	0.00132	0.00006	8.48619
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24549	0.20492	1.66455	3.42285	0.00534	0.04288	—	0.04288	0.03945	—	0.03945	—	529.169	529.169	0.02147	0.00429	—	530.985
Dust From Material Movement	—	—	—	—	—	—	0.04829	0.04829	—	0.00521	0.00521	—	—	—	—	—	—	—

Onsite truck	0.00080	0.00053	0.01124	0.00854	0.00003	0.00003	0.17972	0.17975	0.00003	0.01798	0.01801	—	2.81160	2.81160	0.00023	0.00045	0.00038	2.95125
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04480	0.03740	0.30378	0.62467	0.00097	0.00783	—	0.00783	0.00720	—	0.00720	—	87.6099	87.6099	0.00355	0.00071	—	87.9106
Dust From Material Movement	—	—	—	—	—	—	0.00881	0.00881	—	0.00095	0.00095	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00205	0.00156	0.00001	0.00001	0.03280	0.03281	0.00001	0.00328	0.00329	—	0.46549	0.46549	0.00004	0.00007	0.00006	0.48861
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09866	0.07606	0.05952	1.55536	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	569.820	569.820	0.00331	0.00331	0.32078	571.209
Vendor	0.00924	0.00568	0.18300	0.08067	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	164.573	164.573	0.00321	0.02462	0.05762	172.048
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09755	0.07496	0.08212	1.24341	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	528.605	528.605	0.00441	0.00331	0.00834	529.709
Vendor	0.00854	0.00497	0.18656	0.07834	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	164.786	164.786	0.00321	0.02462	0.00149	172.205
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03417	0.02664	0.02124	0.44965	0.00000	0.00000	0.21235	0.21235	0.00000	0.04952	0.04952	—	188.261	188.261	0.00154	0.00116	0.04862	188.693
Vendor	0.00305	0.00187	0.06436	0.02701	0.00063	0.00063	0.02251	0.02314	0.00063	0.00626	0.00689	—	57.6803	57.6803	0.00112	0.00862	0.00871	60.2872
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00624	0.00486	0.00388	0.08206	0.00000	0.00000	0.03875	0.03875	0.00000	0.00904	0.00904	—	31.1687	31.1687	0.00026	0.00019	0.00805	31.2403

Vendor	0.00056	0.00034	0.01175	0.00493	0.00012	0.00012	0.00411	0.00422	0.00012	0.00114	0.00126	—	9.54962	9.54962	0.00019	0.00143	0.00144	9.98124
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.85. Linear, Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40775	0.34262	3.31377	4.95494	0.00698	0.12777	—	0.12777	0.11755	—	0.11755	—	755.515	755.515	0.03065	0.00613	—	758.108
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40775	0.34262	3.31377	4.95494	0.00698	0.12777	—	0.12777	0.11755	—	0.11755	—	755.515	755.515	0.03065	0.00613	—	758.108
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29045	0.24406	2.36049	3.52955	0.00497	0.09101	—	0.09101	0.08373	—	0.08373	—	538.175	538.175	0.02183	0.00437	—	540.022
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.05301	0.04454	0.43079	0.64414	0.00091	0.01661	—	0.01661	0.01528	—	0.01528	—	89.1010	89.1010	0.00361	0.00072	—	89.4068
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08444	0.07496	0.06900	1.16095	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	264.426	264.426	0.00309	0.00948	0.79203	268.120
Vendor	0.00668	0.00383	0.13180	0.05258	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	119.617	119.617	0.00277	0.01690	0.26883	124.990
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07363	0.07187	0.07893	0.93035	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	245.311	245.311	0.00353	0.00948	0.02053	248.244
Vendor	0.00642	0.00356	0.13940	0.05318	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	119.704	119.704	0.00277	0.01690	0.00697	124.815
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05182	0.05057	0.05559	0.69083	0.00000	0.00000	0.17273	0.17273	0.00000	0.04028	0.04028	—	177.629	177.629	0.00251	0.00675	0.24346	179.948
Vendor	0.00464	0.00260	0.09778	0.03738	0.00064	0.00128	0.02289	0.02417	0.00128	0.00636	0.00764	—	85.2326	85.2326	0.00197	0.01204	0.08255	88.9511
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00946	0.00923	0.01015	0.12608	0.00000	0.00000	0.03152	0.03152	0.00000	0.00735	0.00735	—	29.4086	29.4086	0.00042	0.00112	0.04031	29.7924
Vendor	0.00085	0.00047	0.01784	0.00682	0.00012	0.00023	0.00418	0.00441	0.00023	0.00116	0.00140	—	14.1112	14.1112	0.00033	0.00199	0.01367	14.7269
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.86. Linear, Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40775	0.34262	3.31377	4.95494	0.00698	0.12777	—	0.12777	0.11755	—	0.11755	—	755.515	755.515	0.03065	0.00613	—	758.108
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40775	0.34262	3.31377	4.95494	0.00698	0.12777	—	0.12777	0.11755	—	0.11755	—	755.515	755.515	0.03065	0.00613	—	758.108
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29045	0.24406	2.36049	3.52955	0.00497	0.09101	—	0.09101	0.08373	—	0.08373	—	538.175	538.175	0.02183	0.00437	—	540.022
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05301	0.04454	0.43079	0.64414	0.00091	0.01661	—	0.01661	0.01528	—	0.01528	—	89.1010	89.1010	0.00361	0.00072	—	89.4068
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.08444	0.07496	0.06900	1.16095	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	264.426	264.426	0.00309	0.00948	0.79203	268.120
Vendor	0.00668	0.00383	0.13180	0.05258	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	119.617	119.617	0.00277	0.01690	0.26883	124.990
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07363	0.07187	0.07893	0.93035	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	245.311	245.311	0.00353	0.00948	0.02053	248.244
Vendor	0.00642	0.00356	0.13940	0.05318	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	119.704	119.704	0.00277	0.01690	0.00697	124.815
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05182	0.05057	0.05559	0.69083	0.00000	0.00000	0.17273	0.17273	0.00000	0.04028	0.04028	—	177.629	177.629	0.00251	0.00675	0.24346	179.948
Vendor	0.00464	0.00260	0.09778	0.03738	0.00064	0.00128	0.02289	0.02417	0.00128	0.00636	0.00764	—	85.2326	85.2326	0.00197	0.01204	0.08255	88.9511
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00946	0.00923	0.01015	0.12608	0.00000	0.00000	0.03152	0.03152	0.00000	0.00735	0.00735	—	29.4086	29.4086	0.00042	0.00112	0.04031	29.7924
Vendor	0.00085	0.00047	0.01784	0.00682	0.00012	0.00023	0.00418	0.00441	0.00023	0.00116	0.00140	—	14.1112	14.1112	0.00033	0.00199	0.01367	14.7269
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.87. Linear, Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40023	0.33631	3.22909	4.95920	0.00697	0.11952	—	0.11952	0.10996	—	0.10996	—	755.313	755.313	0.03064	0.00613	—	757.905

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40023	0.33631	3.22909	4.95920	0.00697	0.11952	—	0.11952	0.10996	—	0.10996	—	755.313	755.313	0.03064	0.00613	—	757.905
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28588	0.24022	2.30649	3.54229	0.00498	0.08537	—	0.08537	0.07854	—	0.07854	—	539.509	539.509	0.02188	0.00438	—	541.360
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05217	0.04384	0.42093	0.64647	0.00091	0.01558	—	0.01558	0.01433	—	0.01433	—	89.3219	89.3219	0.00362	0.00072	—	89.6284
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07275	0.07187	0.06041	1.08776	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	259.808	259.808	0.00265	0.00948	0.70921	263.409
Vendor	0.00660	0.00284	0.12579	0.04961	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.342	116.342	0.00268	0.01690	0.24053	121.684
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.07011	0.06063	0.06989	0.87039	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	241.047	241.047	0.00353	0.00948	0.01843	243.978
Vendor	0.00642	0.00266	0.13330	0.05120	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.431	116.431	0.00268	0.01690	0.00623	121.539
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05008	0.04913	0.04960	0.65052	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	175.021	175.021	0.00220	0.00677	0.21913	177.313
Vendor	0.00465	0.00197	0.09369	0.03594	0.00064	0.00128	0.02295	0.02424	0.00128	0.00638	0.00767	—	83.1280	83.1280	0.00191	0.01207	0.07396	86.8463
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00914	0.00897	0.00905	0.11872	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.9767	28.9767	0.00037	0.00112	0.03628	29.3561
Vendor	0.00085	0.00036	0.01710	0.00656	0.00012	0.00023	0.00419	0.00442	0.00023	0.00116	0.00140	—	13.7628	13.7628	0.00032	0.00200	0.01224	14.3784
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.88. Linear, Paving (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40023	0.33631	3.22909	4.95920	0.00697	0.11952	—	0.11952	0.10996	—	0.10996	—	755.313	755.313	0.03064	0.00613	—	757.905
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.40023	0.33631	3.22909	4.95920	0.00697	0.11952	—	0.11952	0.10996	—	0.10996	—	755.313	755.313	0.03064	0.00613	—	757.905
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28588	0.24022	2.30649	3.54229	0.00498	0.08537	—	0.08537	0.07854	—	0.07854	—	539.509	539.509	0.02188	0.00438	—	541.360
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05217	0.04384	0.42093	0.64647	0.00091	0.01558	—	0.01558	0.01433	—	0.01433	—	89.3219	89.3219	0.00362	0.00072	—	89.6284
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07275	0.07187	0.06041	1.08776	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	259.808	259.808	0.00265	0.00948	0.70921	263.409
Vendor	0.00660	0.00284	0.12579	0.04961	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.342	116.342	0.00268	0.01690	0.24053	121.684
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07011	0.06063	0.06989	0.87039	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	241.047	241.047	0.00353	0.00948	0.01843	243.978
Vendor	0.00642	0.00266	0.13330	0.05120	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.431	116.431	0.00268	0.01690	0.00623	121.539
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05008	0.04913	0.04960	0.65052	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	175.021	175.021	0.00220	0.00677	0.21913	177.313
Vendor	0.00465	0.00197	0.09369	0.03594	0.00064	0.00128	0.02295	0.02424	0.00128	0.00638	0.00767	—	83.1280	83.1280	0.00191	0.01207	0.07396	86.8463
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00914	0.00897	0.00905	0.11872	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.9767	28.9767	0.00037	0.00112	0.03628	29.3561
Vendor	0.00085	0.00036	0.01710	0.00656	0.00012	0.00023	0.00419	0.00442	0.00023	0.00116	0.00140	—	13.7628	13.7628	0.00032	0.00200	0.01224	14.3784
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.89. Linear, Paving (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38327	0.32206	3.14010	4.94782	0.00698	0.11018	—	0.11018	0.10136	—	0.10136	—	755.313	755.313	0.03064	0.00613	—	757.905
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38327	0.32206	3.14010	4.94782	0.00698	0.11018	—	0.11018	0.10136	—	0.10136	—	755.313	755.313	0.03064	0.00613	—	757.905
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27377	0.23004	2.24293	3.53416	0.00498	0.07870	—	0.07870	0.07240	—	0.07240	—	539.509	539.509	0.02188	0.00438	—	541.360
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04996	0.04198	0.40933	0.64498	0.00091	0.01436	—	0.01436	0.01321	—	0.01321	—	89.3219	89.3219	0.00362	0.00072	—	89.6284
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06967	0.06063	0.05137	1.02272	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	255.455	255.455	0.00265	0.00948	0.63222	258.979
Vendor	0.00660	0.00284	0.12067	0.04854	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.843	112.843	0.00268	0.01600	0.21223	117.889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06746	0.05798	0.06129	0.81902	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	237.022	237.022	0.00309	0.00948	0.01645	239.941
Vendor	0.00633	0.00266	0.12729	0.04995	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.934	112.934	0.00268	0.01600	0.00551	117.774
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04787	0.04110	0.04346	0.60863	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	172.101	172.101	0.00220	0.00677	0.19497	174.369
Vendor	0.00465	0.00197	0.09004	0.03517	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	80.6293	80.6293	0.00191	0.01143	0.06551	84.1477
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00874	0.00750	0.00793	0.11108	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.4933	28.4933	0.00037	0.00112	0.03228	28.8688
Vendor	0.00085	0.00036	0.01643	0.00642	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	13.3491	13.3491	0.00032	0.00189	0.01085	13.9316
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.90. Linear, Paving (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38327	0.32206	3.14010	4.94782	0.00698	0.11018	—	0.11018	0.10136	—	0.10136	—	755.313	755.313	0.03064	0.00613	—	757.905
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38327	0.32206	3.14010	4.94782	0.00698	0.11018	—	0.11018	0.10136	—	0.10136	—	755.313	755.313	0.03064	0.00613	—	757.905
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27377	0.23004	2.24293	3.53416	0.00498	0.07870	—	0.07870	0.07240	—	0.07240	—	539.509	539.509	0.02188	0.00438	—	541.360
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04996	0.04198	0.40933	0.64498	0.00091	0.01436	—	0.01436	0.01321	—	0.01321	—	89.3219	89.3219	0.00362	0.00072	—	89.6284
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06967	0.06063	0.05137	1.02272	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	255.455	255.455	0.00265	0.00948	0.63222	258.979
Vendor	0.00660	0.00284	0.12067	0.04854	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.843	112.843	0.00268	0.01600	0.21223	117.889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06746	0.05798	0.06129	0.81902	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	237.022	237.022	0.00309	0.00948	0.01645	239.941
Vendor	0.00633	0.00266	0.12729	0.04995	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.934	112.934	0.00268	0.01600	0.00551	117.774
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04787	0.04110	0.04346	0.60863	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	172.101	172.101	0.00220	0.00677	0.19497	174.369
Vendor	0.00465	0.00197	0.09004	0.03517	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	80.6293	80.6293	0.00191	0.01143	0.06551	84.1477
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00874	0.00750	0.00793	0.11108	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.4933	28.4933	0.00037	0.00112	0.03228	28.8688
Vendor	0.00085	0.00036	0.01643	0.00642	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	13.3491	13.3491	0.00032	0.00189	0.01085	13.9316
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.91. Linear, Paving (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37344	0.31380	3.06271	4.94166	0.00698	0.10491	—	0.10491	0.09651	—	0.09651	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37344	0.31380	3.06271	4.94166	0.00698	0.10491	—	0.10491	0.09651	—	0.09651	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26675	0.22414	2.18765	3.52976	0.00498	0.07493	—	0.07493	0.06894	—	0.06894	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04868	0.04091	0.39925	0.64418	0.00091	0.01368	—	0.01368	0.01258	—	0.01258	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06702	0.05798	0.05093	0.95813	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	251.432	251.432	0.00265	0.00132	0.56107	252.453
Vendor	0.00570	0.00284	0.11556	0.04665	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.157	109.157	0.00268	0.01591	0.18522	114.150
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06482	0.05534	0.06085	0.76765	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	233.304	233.304	0.00309	0.00948	0.01458	236.221
Vendor	0.00543	0.00266	0.12217	0.04797	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.250	109.250	0.00268	0.01600	0.00480	114.089
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04598	0.03921	0.04283	0.57289	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	169.400	169.400	0.00189	0.00677	0.17330	171.638
Vendor	0.00401	0.00197	0.08638	0.03376	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	77.9974	77.9974	0.00191	0.01143	0.05706	81.5073
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00839	0.00716	0.00782	0.10455	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.0461	28.0461	0.00031	0.00112	0.02869	28.4167
Vendor	0.00073	0.00036	0.01576	0.00616	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	12.9134	12.9134	0.00032	0.00189	0.00945	13.4945
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.92. Linear, Paving (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.37344	0.31380	3.06271	4.94166	0.00698	0.10491	—	0.10491	0.09651	—	0.09651	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37344	0.31380	3.06271	4.94166	0.00698	0.10491	—	0.10491	0.09651	—	0.09651	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26675	0.22414	2.18765	3.52976	0.00498	0.07493	—	0.07493	0.06894	—	0.06894	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04868	0.04091	0.39925	0.64418	0.00091	0.01368	—	0.01368	0.01258	—	0.01258	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06702	0.05798	0.05093	0.95813	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	251.432	251.432	0.00265	0.00132	0.56107	252.453
Vendor	0.00570	0.00284	0.11556	0.04665	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.157	109.157	0.00268	0.01591	0.18522	114.150
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06482	0.05534	0.06085	0.76765	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	233.304	233.304	0.00309	0.00948	0.01458	236.221
Vendor	0.00543	0.00266	0.12217	0.04797	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.250	109.250	0.00268	0.01600	0.00480	114.089
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04598	0.03921	0.04283	0.57289	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	169.400	169.400	0.00189	0.00677	0.17330	171.638
Vendor	0.00401	0.00197	0.08638	0.03376	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	77.9974	77.9974	0.00191	0.01143	0.05706	81.5073
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00839	0.00716	0.00782	0.10455	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	28.0461	28.0461	0.00031	0.00112	0.02869	28.4167
Vendor	0.00073	0.00036	0.01576	0.00616	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	12.9134	12.9134	0.00032	0.00189	0.00945	13.4945
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.93. Linear, Paving (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36246	0.30457	2.99889	4.92963	0.00698	0.09935	—	0.09935	0.09140	—	0.09140	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.36246	0.30457	2.99889	4.92963	0.00698	0.09935	—	0.09935	0.09140	—	0.09140	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25961	0.21814	2.14793	3.53081	0.00500	0.07116	—	0.07116	0.06546	—	0.06546	—	540.988	540.988	0.02194	0.00439	—	542.845
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04738	0.03981	0.39200	0.64437	0.00091	0.01299	—	0.01299	0.01195	—	0.01195	—	89.5668	89.5668	0.00363	0.00073	—	89.8742
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06393	0.05490	0.04233	0.90257	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	247.789	247.789	0.00220	0.00132	0.49458	248.732
Vendor	0.00570	0.00284	0.11134	0.04557	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.533	105.533	0.00268	0.01501	0.15950	110.233
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06217	0.05269	0.05181	0.72620	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	229.933	229.933	0.00265	0.00948	0.01283	232.837
Vendor	0.00543	0.00266	0.11813	0.04600	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.629	105.629	0.00268	0.01510	0.00413	110.199
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.04453	0.03774	0.03679	0.53956	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	167.410	167.410	0.00189	0.00095	0.15289	167.893
Vendor	0.00402	0.00197	0.08302	0.03308	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	75.6163	75.6163	0.00192	0.01075	0.04920	78.9170
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00813	0.00689	0.00671	0.09847	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	27.7166	27.7166	0.00031	0.00016	0.02531	27.7965
Vendor	0.00073	0.00036	0.01515	0.00604	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	12.5191	12.5191	0.00032	0.00178	0.00814	13.0656
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.94. Linear, Paving (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36246	0.30457	2.99889	4.92963	0.00698	0.09935	—	0.09935	0.09140	—	0.09140	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36246	0.30457	2.99889	4.92963	0.00698	0.09935	—	0.09935	0.09140	—	0.09140	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.25961	0.21814	2.14793	3.53081	0.00500	0.07116	—	0.07116	0.06546	—	0.06546	—	540.988	540.988	0.02194	0.00439	—	542.845
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04738	0.03981	0.39200	0.64437	0.00091	0.01299	—	0.01299	0.01195	—	0.01195	—	89.5668	89.5668	0.00363	0.00073	—	89.8742
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06393	0.05490	0.04233	0.90257	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	247.789	247.789	0.00220	0.00132	0.49458	248.732
Vendor	0.00570	0.00284	0.11134	0.04557	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.533	105.533	0.00268	0.01501	0.15950	110.233
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06217	0.05269	0.05181	0.72620	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	229.933	229.933	0.00265	0.00948	0.01283	232.837
Vendor	0.00543	0.00266	0.11813	0.04600	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.629	105.629	0.00268	0.01510	0.00413	110.199
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04453	0.03774	0.03679	0.53956	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	167.410	167.410	0.00189	0.00095	0.15289	167.893
Vendor	0.00402	0.00197	0.08302	0.03308	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	75.6163	75.6163	0.00192	0.01075	0.04920	78.9170
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00813	0.00689	0.00671	0.09847	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	27.7166	27.7166	0.00031	0.00016	0.02531	27.7965
Vendor	0.00073	0.00036	0.01515	0.00604	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	12.5191	12.5191	0.00032	0.00178	0.00814	13.0656

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.95. Linear, Paving (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34938	0.29358	2.95707	4.91782	0.00698	0.09142	—	0.09142	0.08410	—	0.08410	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34938	0.29358	2.95707	4.91782	0.00698	0.09142	—	0.09142	0.08410	—	0.08410	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24956	0.20970	2.11219	3.51273	0.00498	0.06530	—	0.06530	0.06007	—	0.06007	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.04554	0.03827	0.38547	0.64107	0.00091	0.01192	—	0.01192	0.01096	—	0.01096	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05357	0.05269	0.04189	0.85605	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	244.533	244.533	0.00220	0.00132	0.43509	245.417
Vendor	0.00561	0.00275	0.10730	0.04369	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.042	102.042	0.00268	0.01501	0.13634	106.719
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05225	0.05093	0.05137	0.68520	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	226.910	226.910	0.00265	0.00132	0.01127	227.382
Vendor	0.00543	0.00266	0.11311	0.04501	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.139	102.139	0.00268	0.01501	0.00354	106.683
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03669	0.03606	0.03055	0.50943	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	164.760	164.760	0.00189	0.00094	0.13414	165.223
Vendor	0.00394	0.00197	0.07985	0.03165	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	72.9167	72.9167	0.00191	0.01072	0.04199	76.2013
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00670	0.00658	0.00558	0.09297	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	27.2778	27.2778	0.00031	0.00016	0.02221	27.3545
Vendor	0.00072	0.00036	0.01457	0.00578	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	12.0722	12.0722	0.00032	0.00177	0.00695	12.6160
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.96. Linear, Paving (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34938	0.29358	2.95707	4.91782	0.00698	0.09142	—	0.09142	0.08410	—	0.08410	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34938	0.29358	2.95707	4.91782	0.00698	0.09142	—	0.09142	0.08410	—	0.08410	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24956	0.20970	2.11219	3.51273	0.00498	0.06530	—	0.06530	0.06007	—	0.06007	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04554	0.03827	0.38547	0.64107	0.00091	0.01192	—	0.01192	0.01096	—	0.01096	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05357	0.05269	0.04189	0.85605	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	244.533	244.533	0.00220	0.00132	0.43509	245.417
Vendor	0.00561	0.00275	0.10730	0.04369	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.042	102.042	0.00268	0.01501	0.13634	106.719
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05225	0.05093	0.05137	0.68520	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	226.910	226.910	0.00265	0.00132	0.01127	227.382
Vendor	0.00543	0.00266	0.11311	0.04501	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.139	102.139	0.00268	0.01501	0.00354	106.683
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03669	0.03606	0.03055	0.50943	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	164.760	164.760	0.00189	0.00094	0.13414	165.223
Vendor	0.00394	0.00197	0.07985	0.03165	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	72.9167	72.9167	0.00191	0.01072	0.04199	76.2013
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00670	0.00658	0.00558	0.09297	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	27.2778	27.2778	0.00031	0.00016	0.02221	27.3545
Vendor	0.00072	0.00036	0.01457	0.00578	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	12.0722	12.0722	0.00032	0.00177	0.00695	12.6160
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.97. Linear, Paving (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.34232	0.28765	2.92757	4.91147	0.00698	0.08851	—	0.08851	0.08143	—	0.08143	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34232	0.28765	2.92757	4.91147	0.00698	0.08851	—	0.08851	0.08143	—	0.08143	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24452	0.20546	2.09112	3.50819	0.00498	0.06322	—	0.06322	0.05816	—	0.05816	—	539.516	539.516	0.02189	0.00438	—	541.367
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04462	0.03750	0.38163	0.64025	0.00091	0.01154	—	0.01154	0.01061	—	0.01061	—	89.3230	89.3230	0.00362	0.00072	—	89.6295
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05093	0.05004	0.03329	0.80954	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	241.509	241.509	0.00220	0.00132	0.37910	242.337
Vendor	0.00552	0.00275	0.10408	0.04270	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.7064	98.7064	0.00259	0.01411	0.11576	103.092
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04960	0.04828	0.04277	0.64463	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	224.102	224.102	0.00265	0.00132	0.00982	224.572
Vendor	0.00543	0.00257	0.10997	0.04402	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.8050	98.8050	0.00259	0.01411	0.00301	103.077
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03543	0.03480	0.03023	0.48108	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	162.726	162.726	0.00157	0.00094	0.11665	163.163
Vendor	0.00394	0.00190	0.07760	0.03088	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	70.5342	70.5342	0.00185	0.01008	0.03574	73.6195
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00647	0.00635	0.00552	0.08780	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.9411	26.9411	0.00026	0.00016	0.01931	27.0136
Vendor	0.00072	0.00035	0.01416	0.00564	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.6777	11.6777	0.00031	0.00167	0.00592	12.1886
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.98. Linear, Paving (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34232	0.28765	2.92757	4.91147	0.00698	0.08851	—	0.08851	0.08143	—	0.08143	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.34232	0.28765	2.92757	4.91147	0.00698	0.08851	—	0.08851	0.08143	—	0.08143	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24452	0.20546	2.09112	3.50819	0.00498	0.06322	—	0.06322	0.05816	—	0.05816	—	539.516	539.516	0.02189	0.00438	—	541.367
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04462	0.03750	0.38163	0.64025	0.00091	0.01154	—	0.01154	0.01061	—	0.01061	—	89.3230	89.3230	0.00362	0.00072	—	89.6295
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05093	0.05004	0.03329	0.80954	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	241.509	241.509	0.00220	0.00132	0.37910	242.337
Vendor	0.00552	0.00275	0.10408	0.04270	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.7064	98.7064	0.00259	0.01411	0.11576	103.092
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04960	0.04828	0.04277	0.64463	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	224.102	224.102	0.00265	0.00132	0.00982	224.572
Vendor	0.00543	0.00257	0.10997	0.04402	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.8050	98.8050	0.00259	0.01411	0.00301	103.077
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03543	0.03480	0.03023	0.48108	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	162.726	162.726	0.00157	0.00094	0.11665	163.163
Vendor	0.00394	0.00190	0.07760	0.03088	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	70.5342	70.5342	0.00185	0.01008	0.03574	73.6195
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00647	0.00635	0.00552	0.08780	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.9411	26.9411	0.00026	0.00016	0.01931	27.0136
Vendor	0.00072	0.00035	0.01416	0.00564	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.6777	11.6777	0.00031	0.00167	0.00592	12.1886
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.99. Linear, Paving (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32508	0.27316	2.86370	4.89987	0.00698	0.07526	—	0.07526	0.06924	—	0.06924	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32508	0.27316	2.86370	4.89987	0.00698	0.07526	—	0.07526	0.06924	—	0.06924	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.23220	0.19512	2.04550	3.49991	0.00498	0.05376	—	0.05376	0.04946	—	0.04946	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04238	0.03561	0.37330	0.63873	0.00091	0.00981	—	0.00981	0.00903	—	0.00903	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05004	0.04916	0.03329	0.77206	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	238.808	238.808	0.00176	0.00132	0.32894	239.575
Vendor	0.00552	0.00275	0.10004	0.04171	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.5563	95.5563	0.00259	0.01411	0.09763	99.9234
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04872	0.04740	0.04277	0.61355	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	221.593	221.593	0.00220	0.00132	0.00852	222.051
Vendor	0.00543	0.00257	0.10683	0.04295	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.6562	95.6562	0.00259	0.01411	0.00253	99.9283
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03480	0.03417	0.02992	0.45951	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	160.906	160.906	0.00157	0.00094	0.10165	161.328
Vendor	0.00388	0.00190	0.07472	0.03017	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	68.2845	68.2845	0.00185	0.01008	0.03014	71.3643
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00635	0.00624	0.00546	0.08386	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.6398	26.6398	0.00026	0.00016	0.01683	26.7097
Vendor	0.00071	0.00035	0.01364	0.00551	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.3053	11.3053	0.00031	0.00167	0.00499	11.8152

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.100. Linear, Paving (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32508	0.27316	2.86370	4.89987	0.00698	0.07526	—	0.07526	0.06924	—	0.06924	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32508	0.27316	2.86370	4.89987	0.00698	0.07526	—	0.07526	0.06924	—	0.06924	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23220	0.19512	2.04550	3.49991	0.00498	0.05376	—	0.05376	0.04946	—	0.04946	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.04238	0.03561	0.37330	0.63873	0.00091	0.00981	—	0.00981	0.00903	—	0.00903	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05004	0.04916	0.03329	0.77206	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	238.808	238.808	0.00176	0.00132	0.32894	239.575
Vendor	0.00552	0.00275	0.10004	0.04171	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.5563	95.5563	0.00259	0.01411	0.09763	99.9234
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04872	0.04740	0.04277	0.61355	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	221.593	221.593	0.00220	0.00132	0.00852	222.051
Vendor	0.00543	0.00257	0.10683	0.04295	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.6562	95.6562	0.00259	0.01411	0.00253	99.9283
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03480	0.03417	0.02992	0.45951	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	160.906	160.906	0.00157	0.00094	0.10165	161.328
Vendor	0.00388	0.00190	0.07472	0.03017	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	68.2845	68.2845	0.00185	0.01008	0.03014	71.3643
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00635	0.00624	0.00546	0.08386	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.6398	26.6398	0.00026	0.00016	0.01683	26.7097
Vendor	0.00071	0.00035	0.01364	0.00551	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.3053	11.3053	0.00031	0.00167	0.00499	11.8152
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.101. Linear, Paving (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31621	0.26570	2.81084	4.89215	0.00698	0.06865	—	0.06865	0.06316	—	0.06316	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31621	0.26570	2.81084	4.89215	0.00698	0.06865	—	0.06865	0.06316	—	0.06316	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22648	0.19031	2.01324	3.50397	0.00500	0.04917	—	0.04917	0.04524	—	0.04524	—	540.988	540.988	0.02194	0.00439	—	542.845
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04133	0.03473	0.36742	0.63947	0.00091	0.00897	—	0.00897	0.00826	—	0.00826	—	89.5668	89.5668	0.00363	0.00073	—	89.8742
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04872	0.04784	0.03285	0.73458	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	236.412	236.412	0.00176	0.00132	0.28345	237.133
Vendor	0.00462	0.00275	0.09780	0.04081	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.6694	92.6694	0.00169	0.01411	0.08168	96.9981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04740	0.04652	0.04233	0.58290	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	219.365	219.365	0.00220	0.00132	0.00735	219.822
Vendor	0.00436	0.00257	0.10378	0.04196	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.7706	92.7706	0.00169	0.01411	0.00212	97.0197
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03395	0.03332	0.02416	0.43913	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	159.722	159.722	0.00158	0.00095	0.08772	160.132
Vendor	0.00325	0.00191	0.07274	0.02961	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	66.4043	66.4043	0.00121	0.01011	0.02524	69.4714
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00620	0.00608	0.00441	0.08014	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	26.4438	26.4438	0.00026	0.00016	0.01452	26.5116
Vendor	0.00059	0.00035	0.01327	0.00540	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	10.9940	10.9940	0.00020	0.00167	0.00418	11.5018
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.102. Linear, Paving (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.31621	0.26570	2.81084	4.89215	0.00698	0.06865	—	0.06865	0.06316	—	0.06316	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31621	0.26570	2.81084	4.89215	0.00698	0.06865	—	0.06865	0.06316	—	0.06316	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22648	0.19031	2.01324	3.50397	0.00500	0.04917	—	0.04917	0.04524	—	0.04524	—	540.988	540.988	0.02194	0.00439	—	542.845
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04133	0.03473	0.36742	0.63947	0.00091	0.00897	—	0.00897	0.00826	—	0.00826	—	89.5668	89.5668	0.00363	0.00073	—	89.8742
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04872	0.04784	0.03285	0.73458	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	236.412	236.412	0.00176	0.00132	0.28345	237.133
Vendor	0.00462	0.00275	0.09780	0.04081	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.6694	92.6694	0.00169	0.01411	0.08168	96.9981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04740	0.04652	0.04233	0.58290	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	219.365	219.365	0.00220	0.00132	0.00735	219.822
Vendor	0.00436	0.00257	0.10378	0.04196	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.7706	92.7706	0.00169	0.01411	0.00212	97.0197
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03395	0.03332	0.02416	0.43913	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	159.722	159.722	0.00158	0.00095	0.08772	160.132
Vendor	0.00325	0.00191	0.07274	0.02961	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	66.4043	66.4043	0.00121	0.01011	0.02524	69.4714
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00620	0.00608	0.00441	0.08014	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	26.4438	26.4438	0.00026	0.00016	0.01452	26.5116
Vendor	0.00059	0.00035	0.01327	0.00540	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	10.9940	10.9940	0.00020	0.00167	0.00418	11.5018
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.103. Linear, Paving (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30609	0.25720	2.74916	4.88587	0.00698	0.06207	—	0.06207	0.05710	—	0.05710	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.30609	0.25720	2.74916	4.88587	0.00698	0.06207	—	0.06207	0.05710	—	0.05710	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21864	0.18371	1.96369	3.48991	0.00498	0.04433	—	0.04433	0.04079	—	0.04079	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03990	0.03353	0.35837	0.63691	0.00091	0.00809	—	0.00809	0.00744	—	0.00744	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04696	0.04608	0.03285	0.70658	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	234.265	234.265	0.00176	0.00132	0.24379	234.947
Vendor	0.00462	0.00275	0.09475	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.1129	90.1129	0.00169	0.01321	0.06779	94.1596
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04564	0.04475	0.03373	0.56130	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	217.362	217.362	0.00220	0.00132	0.00631	217.818
Vendor	0.00436	0.00257	0.10064	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.2152	90.2152	0.00169	0.01321	0.00176	94.1959
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03260	0.03197	0.02378	0.41699	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	157.838	157.838	0.00157	0.00094	0.07507	158.234
Vendor	0.00324	0.00190	0.07094	0.02889	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	64.3970	64.3970	0.00121	0.00944	0.02095	67.2600
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00595	0.00583	0.00434	0.07610	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.1319	26.1319	0.00026	0.00016	0.01243	26.1975
Vendor	0.00059	0.00035	0.01295	0.00527	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.6617	10.6617	0.00020	0.00156	0.00347	11.1357
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.104. Linear, Paving (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30609	0.25720	2.74916	4.88587	0.00698	0.06207	—	0.06207	0.05710	—	0.05710	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30609	0.25720	2.74916	4.88587	0.00698	0.06207	—	0.06207	0.05710	—	0.05710	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.21864	0.18371	1.96369	3.48991	0.00498	0.04433	—	0.04433	0.04079	—	0.04079	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03990	0.03353	0.35837	0.63691	0.00091	0.00809	—	0.00809	0.00744	—	0.00744	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04696	0.04608	0.03285	0.70658	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	234.265	234.265	0.00176	0.00132	0.24379	234.947
Vendor	0.00462	0.00275	0.09475	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.1129	90.1129	0.00169	0.01321	0.06779	94.1596
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04564	0.04475	0.03373	0.56130	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	217.362	217.362	0.00220	0.00132	0.00631	217.818
Vendor	0.00436	0.00257	0.10064	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.2152	90.2152	0.00169	0.01321	0.00176	94.1959
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03260	0.03197	0.02378	0.41699	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	157.838	157.838	0.00157	0.00094	0.07507	158.234
Vendor	0.00324	0.00190	0.07094	0.02889	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	64.3970	64.3970	0.00121	0.00944	0.02095	67.2600
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00595	0.00583	0.00434	0.07610	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	26.1319	26.1319	0.00026	0.00016	0.01243	26.1975
Vendor	0.00059	0.00035	0.01295	0.00527	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.6617	10.6617	0.00020	0.00156	0.00347	11.1357

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.105. Linear, Paving (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29694	0.24951	2.69064	4.87851	0.00698	0.05621	—	0.05621	0.05171	—	0.05171	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29694	0.24951	2.69064	4.87851	0.00698	0.05621	—	0.05621	0.05171	—	0.05171	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21210	0.17822	1.92189	3.48465	0.00498	0.04015	—	0.04015	0.03694	—	0.03694	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.03871	0.03253	0.35074	0.63595	0.00091	0.00733	—	0.00733	0.00674	—	0.00674	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04431	0.04387	0.03241	0.67858	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	232.366	232.366	0.00176	0.00132	0.20880	233.013
Vendor	0.00462	0.00275	0.09259	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.7950	87.7950	0.00169	0.01321	0.05570	91.8297
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04431	0.04343	0.03373	0.54057	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	215.592	215.592	0.00220	0.00132	0.00540	216.046
Vendor	0.00436	0.00257	0.09866	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.8985	87.8985	0.00169	0.01321	0.00144	91.8788
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03134	0.03102	0.02378	0.40250	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	156.557	156.557	0.00126	0.00094	0.06432	156.934
Vendor	0.00324	0.00190	0.06940	0.02882	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	62.7418	62.7418	0.00121	0.00944	0.01718	65.6011
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00572	0.00566	0.00434	0.07346	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	25.9197	25.9197	0.00021	0.00016	0.01065	25.9822
Vendor	0.00059	0.00035	0.01267	0.00526	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.3876	10.3876	0.00020	0.00156	0.00284	10.8610
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.106. Linear, Paving (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29694	0.24951	2.69064	4.87851	0.00698	0.05621	—	0.05621	0.05171	—	0.05171	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29694	0.24951	2.69064	4.87851	0.00698	0.05621	—	0.05621	0.05171	—	0.05171	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21210	0.17822	1.92189	3.48465	0.00498	0.04015	—	0.04015	0.03694	—	0.03694	—	539.510	539.510	0.02188	0.00438	—	541.362
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03871	0.03253	0.35074	0.63595	0.00091	0.00733	—	0.00733	0.00674	—	0.00674	—	89.3221	89.3221	0.00362	0.00072	—	89.6286
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04431	0.04387	0.03241	0.67858	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	232.366	232.366	0.00176	0.00132	0.20880	233.013
Vendor	0.00462	0.00275	0.09259	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.7950	87.7950	0.00169	0.01321	0.05570	91.8297
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04431	0.04343	0.03373	0.54057	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	215.592	215.592	0.00220	0.00132	0.00540	216.046
Vendor	0.00436	0.00257	0.09866	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.8985	87.8985	0.00169	0.01321	0.00144	91.8788
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03134	0.03102	0.02378	0.40250	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	156.557	156.557	0.00126	0.00094	0.06432	156.934
Vendor	0.00324	0.00190	0.06940	0.02882	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	62.7418	62.7418	0.00121	0.00944	0.01718	65.6011
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00572	0.00566	0.00434	0.07346	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	25.9197	25.9197	0.00021	0.00016	0.01065	25.9822
Vendor	0.00059	0.00035	0.01267	0.00526	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.3876	10.3876	0.00020	0.00156	0.00284	10.8610
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.107. Linear, Paving (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.29188	0.24526	2.65323	4.87582	0.00698	0.05504	—	0.05504	0.05063	—	0.05063	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29188	0.24526	2.65323	4.87582	0.00698	0.05504	—	0.05504	0.05063	—	0.05063	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20848	0.17518	1.89517	3.48273	0.00498	0.03931	—	0.03931	0.03617	—	0.03617	—	539.516	539.516	0.02189	0.00438	—	541.367
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03805	0.03197	0.34587	0.63560	0.00091	0.00717	—	0.00717	0.00660	—	0.00660	—	89.3230	89.3230	0.00362	0.00072	—	89.6295
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04255	0.04211	0.02425	0.65918	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	230.706	230.706	0.00176	0.00132	0.17730	231.322
Vendor	0.00462	0.00284	0.09143	0.03884	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.7561	85.7561	0.00160	0.01321	0.04515	89.7779
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04211	0.04123	0.03329	0.51985	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	214.036	214.036	0.00176	0.00132	0.00461	214.479
Vendor	0.00436	0.00257	0.09651	0.04007	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.8606	85.8606	0.00160	0.01321	0.00117	89.8386
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02976	0.02945	0.02346	0.38833	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	155.429	155.429	0.00126	0.00094	0.05482	155.797
Vendor	0.00324	0.00197	0.06793	0.02818	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	61.2858	61.2858	0.00115	0.00944	0.01387	64.1402
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00543	0.00537	0.00428	0.07087	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	25.7330	25.7330	0.00021	0.00016	0.00908	25.7939
Vendor	0.00059	0.00036	0.01240	0.00514	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.1466	10.1466	0.00019	0.00156	0.00230	10.6191
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.108. Linear, Paving (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29188	0.24526	2.65323	4.87582	0.00698	0.05504	—	0.05504	0.05063	—	0.05063	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.29188	0.24526	2.65323	4.87582	0.00698	0.05504	—	0.05504	0.05063	—	0.05063	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20848	0.17518	1.89517	3.48273	0.00498	0.03931	—	0.03931	0.03617	—	0.03617	—	539.516	539.516	0.02189	0.00438	—	541.367
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03805	0.03197	0.34587	0.63560	0.00091	0.00717	—	0.00717	0.00660	—	0.00660	—	89.3230	89.3230	0.00362	0.00072	—	89.6295
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04255	0.04211	0.02425	0.65918	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	230.706	230.706	0.00176	0.00132	0.17730	231.322
Vendor	0.00462	0.00284	0.09143	0.03884	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.7561	85.7561	0.00160	0.01321	0.04515	89.7779
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04211	0.04123	0.03329	0.51985	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	214.036	214.036	0.00176	0.00132	0.00461	214.479
Vendor	0.00436	0.00257	0.09651	0.04007	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.8606	85.8606	0.00160	0.01321	0.00117	89.8386
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02976	0.02945	0.02346	0.38833	0.00000	0.00000	0.17320	0.17320	0.00000	0.04039	0.04039	—	155.429	155.429	0.00126	0.00094	0.05482	155.797
Vendor	0.00324	0.00197	0.06793	0.02818	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	61.2858	61.2858	0.00115	0.00944	0.01387	64.1402
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00543	0.00537	0.00428	0.07087	0.00000	0.00000	0.03161	0.03161	0.00000	0.00737	0.00737	—	25.7330	25.7330	0.00021	0.00016	0.00908	25.7939
Vendor	0.00059	0.00036	0.01240	0.00514	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.1466	10.1466	0.00019	0.00156	0.00230	10.6191
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.109. Linear, Paving (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28926	0.24306	2.63742	4.87311	0.00698	0.05309	—	0.05309	0.04884	—	0.04884	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28926	0.24306	2.63742	4.87311	0.00698	0.05309	—	0.05309	0.04884	—	0.04884	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.20718	0.17409	1.88903	3.49033	0.00500	0.03803	—	0.03803	0.03498	—	0.03498	—	540.994	540.994	0.02195	0.00439	—	542.850
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03781	0.03177	0.34475	0.63699	0.00091	0.00694	—	0.00694	0.00638	—	0.00638	—	89.5677	89.5677	0.00363	0.00073	—	89.8751
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04079	0.03175	0.02381	0.64066	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	229.255	229.255	0.00132	0.00132	0.15164	229.834
Vendor	0.00453	0.00275	0.08928	0.03803	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	83.9263	83.9263	0.00160	0.01231	0.03614	87.6711
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04079	0.03175	0.03329	0.50861	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	212.681	212.681	0.00176	0.00132	0.00392	213.123
Vendor	0.00427	0.00249	0.09535	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	84.0318	84.0318	0.00160	0.01231	0.00094	87.7415
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02858	0.02242	0.02353	0.38134	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	154.873	154.873	0.00126	0.00095	0.04679	155.233
Vendor	0.00312	0.00191	0.06664	0.02755	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	60.1434	60.1434	0.00115	0.00882	0.01115	62.8108
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00522	0.00409	0.00429	0.06959	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	25.6409	25.6409	0.00021	0.00016	0.00775	25.7007
Vendor	0.00057	0.00035	0.01216	0.00503	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	9.95742	9.95742	0.00019	0.00146	0.00185	10.3990

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.110. Linear, Paving (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28926	0.24306	2.63742	4.87311	0.00698	0.05309	—	0.05309	0.04884	—	0.04884	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28926	0.24306	2.63742	4.87311	0.00698	0.05309	—	0.05309	0.04884	—	0.04884	—	755.322	755.322	0.03064	0.00613	—	757.914
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20718	0.17409	1.88903	3.49033	0.00500	0.03803	—	0.03803	0.03498	—	0.03498	—	540.994	540.994	0.02195	0.00439	—	542.850
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.03781	0.03177	0.34475	0.63699	0.00091	0.00694	—	0.00694	0.00638	—	0.00638	—	89.5677	89.5677	0.00363	0.00073	—	89.8751
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04079	0.03175	0.02381	0.64066	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	229.255	229.255	0.00132	0.00132	0.15164	229.834
Vendor	0.00453	0.00275	0.08928	0.03803	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	83.9263	83.9263	0.00160	0.01231	0.03614	87.6711
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04079	0.03175	0.03329	0.50861	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	212.681	212.681	0.00176	0.00132	0.00392	213.123
Vendor	0.00427	0.00249	0.09535	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	84.0318	84.0318	0.00160	0.01231	0.00094	87.7415
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02858	0.02242	0.02353	0.38134	0.00000	0.00000	0.17368	0.17368	0.00000	0.04050	0.04050	—	154.873	154.873	0.00126	0.00095	0.04679	155.233
Vendor	0.00312	0.00191	0.06664	0.02755	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	60.1434	60.1434	0.00115	0.00882	0.01115	62.8108
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00522	0.00409	0.00429	0.06959	0.00000	0.00000	0.03170	0.03170	0.00000	0.00739	0.00739	—	25.6409	25.6409	0.00021	0.00016	0.00775	25.7007
Vendor	0.00057	0.00035	0.01216	0.00503	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	9.95742	9.95742	0.00019	0.00146	0.00185	10.3990
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.111. Linear, Paving (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28539	0.23981	2.60187	4.86883	0.00698	0.04997	—	0.04997	0.04597	—	0.04597	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28539	0.23981	2.60187	4.86883	0.00698	0.04997	—	0.04997	0.04597	—	0.04597	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09997	0.08400	0.91142	1.70552	0.00244	0.01750	—	0.01750	0.01610	—	0.01610	—	264.582	264.582	0.01073	0.00215	—	265.490
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01824	0.01533	0.16633	0.31126	0.00045	0.00319	—	0.00319	0.00294	—	0.00294	—	43.8045	43.8045	0.00178	0.00036	—	43.9549
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03946	0.03042	0.02381	0.62214	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	227.928	227.928	0.00132	0.00132	0.12831	228.484
Vendor	0.00462	0.00284	0.09150	0.04034	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.2865	82.2865	0.00160	0.01231	0.02881	86.0240
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03902	0.02998	0.03285	0.49736	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	211.442	211.442	0.00176	0.00132	0.00334	211.883
Vendor	0.00427	0.00249	0.09328	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.3931	82.3931	0.00160	0.01231	0.00075	86.1026
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01367	0.01066	0.00849	0.17986	0.00000	0.00000	0.08494	0.08494	0.00000	0.01981	0.01981	—	75.3043	75.3043	0.00062	0.00046	0.01945	75.4772
Vendor	0.00153	0.00093	0.03218	0.01351	0.00032	0.00032	0.01126	0.01157	0.00032	0.00313	0.00344	—	28.8401	28.8401	0.00056	0.00431	0.00436	30.1436
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00249	0.00194	0.00155	0.03282	0.00000	0.00000	0.01550	0.01550	0.00000	0.00361	0.00361	—	12.4675	12.4675	0.00010	0.00008	0.00322	12.4961
Vendor	0.00028	0.00017	0.00587	0.00246	0.00006	0.00006	0.00205	0.00211	0.00006	0.00057	0.00063	—	4.77481	4.77481	0.00009	0.00071	0.00072	4.99062
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.112. Linear, Paving (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.28539	0.23981	2.60187	4.86883	0.00698	0.04997	—	0.04997	0.04597	—	0.04597	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28539	0.23981	2.60187	4.86883	0.00698	0.04997	—	0.04997	0.04597	—	0.04597	—	755.315	755.315	0.03064	0.00613	—	757.907
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09997	0.08400	0.91142	1.70552	0.00244	0.01750	—	0.01750	0.01610	—	0.01610	—	264.582	264.582	0.01073	0.00215	—	265.490
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01824	0.01533	0.16633	0.31126	0.00045	0.00319	—	0.00319	0.00294	—	0.00294	—	43.8045	43.8045	0.00178	0.00036	—	43.9549
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03946	0.03042	0.02381	0.62214	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	227.928	227.928	0.00132	0.00132	0.12831	228.484
Vendor	0.00462	0.00284	0.09150	0.04034	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.2865	82.2865	0.00160	0.01231	0.02881	86.0240
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03902	0.02998	0.03285	0.49736	0.00000	0.00000	0.26142	0.26142	0.00000	0.06128	0.06128	—	211.442	211.442	0.00176	0.00132	0.00334	211.883
Vendor	0.00427	0.00249	0.09328	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.3931	82.3931	0.00160	0.01231	0.00075	86.1026
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01367	0.01066	0.00849	0.17986	0.00000	0.00000	0.08494	0.08494	0.00000	0.01981	0.01981	—	75.3043	75.3043	0.00062	0.00046	0.01945	75.4772
Vendor	0.00153	0.00093	0.03218	0.01351	0.00032	0.00032	0.01126	0.01157	0.00032	0.00313	0.00344	—	28.8401	28.8401	0.00056	0.00431	0.00436	30.1436
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00249	0.00194	0.00155	0.03282	0.00000	0.00000	0.01550	0.01550	0.00000	0.00361	0.00361	—	12.4675	12.4675	0.00010	0.00008	0.00322	12.4961
Vendor	0.00028	0.00017	0.00587	0.00246	0.00006	0.00006	0.00205	0.00211	0.00006	0.00057	0.00063	—	4.77481	4.77481	0.00009	0.00071	0.00072	4.99062
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.113. Site Preparation (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41893	1.19230	11.3770	13.7348	0.02262	0.43843	—	0.43843	0.40335	—	0.40335	—	2,450.04	2,450.04	0.09938	0.01988	—	2,458.45
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—

Onsite truck	0.00295	0.00159	0.04158	0.02496	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.0769	16.0769	0.00115	0.00256	0.02749	16.8952
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41893	1.19230	11.3770	13.7348	0.02262	0.43843	—	0.43843	0.40335	—	0.40335	—	2,450.04	2,450.04	0.09938	0.01988	—	2,458.45
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00273	0.00137	0.04405	0.02566	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.1517	16.1517	0.00115	0.00260	0.00071	16.9563
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01075	0.84931	8.10416	9.78371	0.01611	0.31231	—	0.31231	0.28732	—	0.28732	—	1,745.23	1,745.23	0.07079	0.01416	—	1,751.22
Dust From Material Movement	—	—	—	—	—	—	1.21353	1.21353	—	0.62368	0.62368	—	—	—	—	—	—	—
Onsite truck	0.00204	0.00107	0.03059	0.01800	0.00009	0.00019	0.73094	0.73113	0.00019	0.07311	0.07330	—	11.4744	11.4744	0.00082	0.00185	0.00845	12.0555
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18446	0.15500	1.47901	1.78553	0.00294	0.05700	—	0.05700	0.05244	—	0.05244	—	288.943	288.943	0.01172	0.00234	—	289.935
Dust From Material Movement	—	—	—	—	—	—	0.22147	0.22147	—	0.11382	0.11382	—	—	—	—	—	—	—
Onsite truck	0.00037	0.00019	0.00558	0.00328	0.00002	0.00003	0.13340	0.13343	0.00003	0.01334	0.01338	—	1.89972	1.89972	0.00014	0.00031	0.00140	1.99593

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21109	0.18739	0.17251	2.90239	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	661.064	661.064	0.00772	0.02370	1.98008	670.299
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03086	0.00952	0.62029	0.19507	0.00370	0.01058	0.14832	0.15890	0.01058	0.04061	0.05119	—	521.217	521.217	0.01728	0.08325	1.09963	547.556
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18409	0.17968	0.19731	2.32588	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	613.276	613.276	0.00882	0.02370	0.05132	620.611
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02998	0.00864	0.65557	0.19789	0.00370	0.01058	0.14832	0.15890	0.01058	0.04061	0.05119	—	521.516	521.516	0.01728	0.08342	0.02850	546.837
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12956	0.12642	0.13898	1.72707	0.00000	0.00000	0.43182	0.43182	0.00000	0.10069	0.10069	—	444.073	444.073	0.00628	0.01688	0.60864	449.870
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02173	0.00653	0.46158	0.13983	0.00264	0.00754	0.09982	0.10736	0.00754	0.02747	0.03501	—	371.367	371.367	0.01231	0.05942	0.33811	389.722
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02364	0.02307	0.02536	0.31519	0.00000	0.00000	0.07881	0.07881	0.00000	0.01838	0.01838	—	73.5214	73.5214	0.00104	0.00280	0.10077	74.4811
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00397	0.00119	0.08424	0.02552	0.00048	0.00138	0.01822	0.01959	0.00138	0.00501	0.00639	—	61.4841	61.4841	0.00204	0.00984	0.05598	64.5229

3.114. Site Preparation (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.41893	1.19230	11.3770	13.7348	0.02262	0.43843	—	0.43843	0.40335	—	0.40335	—	2,450.04	2,450.04	0.09938	0.01988	—	2,458.45
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00295	0.00159	0.04158	0.02496	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.0769	16.0769	0.00115	0.00256	0.02749	16.8952
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41893	1.19230	11.3770	13.7348	0.02262	0.43843	—	0.43843	0.40335	—	0.40335	—	2,450.04	2,450.04	0.09938	0.01988	—	2,458.45
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00273	0.00137	0.04405	0.02566	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.1517	16.1517	0.00115	0.00260	0.00071	16.9563
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01075	0.84931	8.10416	9.78371	0.01611	0.31231	—	0.31231	0.28732	—	0.28732	—	1,745.23	1,745.23	0.07079	0.01416	—	1,751.22
Dust From Material Movement	—	—	—	—	—	—	1.21353	1.21353	—	0.62368	0.62368	—	—	—	—	—	—	—
Onsite truck	0.00204	0.00107	0.03059	0.01800	0.00009	0.00019	0.73094	0.73113	0.00019	0.07311	0.07330	—	11.4744	11.4744	0.00082	0.00185	0.00845	12.0555
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18446	0.15500	1.47901	1.78553	0.00294	0.05700	—	0.05700	0.05244	—	0.05244	—	288.943	288.943	0.01172	0.00234	—	289.935

Dust From Material Movement	—	—	—	—	—	—	0.22147	0.22147	—	0.11382	0.11382	—	—	—	—	—	—	—
Onsite truck	0.00037	0.00019	0.00558	0.00328	0.00002	0.00003	0.13340	0.13343	0.00003	0.01334	0.01338	—	1.89972	1.89972	0.00014	0.00031	0.00140	1.99593
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21109	0.18739	0.17251	2.90239	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	661.064	661.064	0.00772	0.02370	1.98008	670.299
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03086	0.00952	0.62029	0.19507	0.00370	0.01058	0.14832	0.15890	0.01058	0.04061	0.05119	—	521.217	521.217	0.01728	0.08325	1.09963	547.556
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18409	0.17968	0.19731	2.32588	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	613.276	613.276	0.00882	0.02370	0.05132	620.611
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02998	0.00864	0.65557	0.19789	0.00370	0.01058	0.14832	0.15890	0.01058	0.04061	0.05119	—	521.516	521.516	0.01728	0.08342	0.02850	546.837
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12956	0.12642	0.13898	1.72707	0.00000	0.00000	0.43182	0.43182	0.00000	0.10069	0.10069	—	444.073	444.073	0.00628	0.01688	0.60864	449.870
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02173	0.00653	0.46158	0.13983	0.00264	0.00754	0.09982	0.10736	0.00754	0.02747	0.03501	—	371.367	371.367	0.01231	0.05942	0.33811	389.722
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02364	0.02307	0.02536	0.31519	0.00000	0.00000	0.07881	0.07881	0.00000	0.01838	0.01838	—	73.5214	73.5214	0.00104	0.00280	0.10077	74.4811
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00397	0.00119	0.08424	0.02552	0.00048	0.00138	0.01822	0.01959	0.00138	0.00501	0.00639	—	61.4841	61.4841	0.00204	0.00984	0.05598	64.5229

3.115. Site Preparation (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38922	1.16733	10.8274	13.6466	0.02261	0.41650	—	0.41650	0.38318	—	0.38318	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00287	0.00159	0.04079	0.02491	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.6952	15.6952	0.00115	0.00247	0.02522	16.4849
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38922	1.16733	10.8274	13.6466	0.02261	0.41650	—	0.41650	0.38318	—	0.38318	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00137	0.04317	0.02562	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.7706	15.7706	0.00115	0.00251	0.00065	16.5489
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99230	0.83381	7.73383	9.74756	0.01615	0.29750	—	0.29750	0.27370	—	0.27370	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—

Onsite truck	0.00198	0.00107	0.03011	0.01801	0.00009	0.00019	0.73295	0.73314	0.00019	0.07332	0.07350	—	11.2335	11.2335	0.00082	0.00176	0.00777	11.7873
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18110	0.15217	1.41142	1.77893	0.00295	0.05429	—	0.05429	0.04995	—	0.04995	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00549	0.00329	0.00002	0.00003	0.13376	0.13380	0.00003	0.01338	0.01341	—	1.85983	1.85983	0.00014	0.00029	0.00129	1.95152
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18188	0.17968	0.15102	2.71940	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	649.520	649.520	0.00661	0.02370	1.77303	658.521
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02734	0.00952	0.60124	0.19171	0.00370	0.01058	0.14832	0.15890	0.01058	0.04061	0.05119	—	507.763	507.763	0.01728	0.07972	1.00884	532.960
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17527	0.15157	0.17472	2.17596	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	602.617	602.617	0.00882	0.02370	0.04608	609.946
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02646	0.00864	0.63299	0.19454	0.00370	0.01058	0.14832	0.15890	0.01058	0.04061	0.05119	—	508.061	508.061	0.01728	0.07990	0.02613	532.329
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12519	0.12283	0.12401	1.62630	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	437.551	437.551	0.00551	0.01693	0.54782	443.282
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01927	0.00655	0.44924	0.13782	0.00265	0.00756	0.10009	0.10765	0.00756	0.02754	0.03510	—	362.776	362.776	0.01235	0.05694	0.31094	380.364
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02285	0.02242	0.02263	0.29680	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	72.4416	72.4416	0.00091	0.00280	0.09070	73.3903

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00352	0.00120	0.08199	0.02515	0.00048	0.00138	0.01827	0.01965	0.00138	0.00503	0.00641	—	60.0617	60.0617	0.00204	0.00943	0.05148	62.9737

3.116. Site Preparation (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38922	1.16733	10.8274	13.6466	0.02261	0.41650	—	0.41650	0.38318	—	0.38318	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00287	0.00159	0.04079	0.02491	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.6952	15.6952	0.00115	0.00247	0.02522	16.4849
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38922	1.16733	10.8274	13.6466	0.02261	0.41650	—	0.41650	0.38318	—	0.38318	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00137	0.04317	0.02562	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.7706	15.7706	0.00115	0.00251	0.00065	16.5489
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.99230	0.83381	7.73383	9.74756	0.01615	0.29750	—	0.29750	0.27370	—	0.27370	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00198	0.00107	0.03011	0.01801	0.00009	0.00019	0.73295	0.73314	0.00019	0.07332	0.07350	—	11.2335	11.2335	0.00082	0.00176	0.00777	11.7873
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18110	0.15217	1.41142	1.77893	0.00295	0.05429	—	0.05429	0.04995	—	0.04995	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00549	0.00329	0.00002	0.00003	0.13376	0.13380	0.00003	0.01338	0.01341	—	1.85983	1.85983	0.00014	0.00029	0.00129	1.95152
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18188	0.17968	0.15102	2.71940	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	649.520	649.520	0.00661	0.02370	1.77303	658.521
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02734	0.00952	0.60124	0.19171	0.00370	0.01058	0.14832	0.15890	0.01058	0.04061	0.05119	—	507.763	507.763	0.01728	0.07972	1.00884	532.960
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17527	0.15157	0.17472	2.17596	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	602.617	602.617	0.00882	0.02370	0.04608	609.946
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02646	0.00864	0.63299	0.19454	0.00370	0.01058	0.14832	0.15890	0.01058	0.04061	0.05119	—	508.061	508.061	0.01728	0.07990	0.02613	532.329
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12519	0.12283	0.12401	1.62630	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	437.551	437.551	0.00551	0.01693	0.54782	443.282

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01927	0.00655	0.44924	0.13782	0.00265	0.00756	0.10009	0.10765	0.00756	0.02754	0.03510	—	362.776	362.776	0.01235	0.05694	0.31094	380.364
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02285	0.02242	0.02263	0.29680	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	72.4416	72.4416	0.00091	0.00280	0.09070	73.3903
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00352	0.00120	0.08199	0.02515	0.00048	0.00138	0.01827	0.01965	0.00138	0.00503	0.00641	—	60.0617	60.0617	0.00204	0.00943	0.05148	62.9737

3.117. Site Preparation (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36187	1.14435	10.5486	13.7606	0.02261	0.40441	—	0.40441	0.37205	—	0.37205	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.04004	0.02487	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3214	15.3214	0.00106	0.00247	0.02295	16.1066
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36187	1.14435	10.5486	13.7606	0.02261	0.40441	—	0.40441	0.37205	—	0.37205	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25

Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04246	0.02557	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3976	15.3976	0.00101	0.00247	0.00060	16.1593
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97276	0.81739	7.53469	9.82902	0.01615	0.28886	—	0.28886	0.26575	—	0.26575	—	1,749.17	1,749.17	0.07095	0.01419	—	1,755.18
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02957	0.01798	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.9667	10.9667	0.00072	0.00176	0.00708	11.5175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17753	0.14917	1.37508	1.79380	0.00295	0.05272	—	0.05272	0.04850	—	0.04850	—	289.596	289.596	0.01175	0.00235	—	290.590
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00540	0.00328	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.81566	1.81566	0.00012	0.00029	0.00117	1.90685
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17417	0.15157	0.12842	2.55681	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	638.638	638.638	0.00661	0.02370	1.58056	647.447
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02716	0.00952	0.58237	0.18836	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	494.436	494.436	0.01376	0.07972	0.91804	519.454

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16865	0.14495	0.15322	2.04754	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	592.556	592.556	0.00772	0.02370	0.04112	599.852
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02628	0.00864	0.61430	0.19118	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	494.740	494.740	0.01358	0.07972	0.02381	518.860
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11968	0.10275	0.10866	1.52158	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	430.253	430.253	0.00551	0.01693	0.48742	435.923
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01915	0.00655	0.43576	0.13543	0.00265	0.00756	0.10009	0.10765	0.00504	0.02754	0.03258	—	353.260	353.260	0.00970	0.05694	0.28319	370.754
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02184	0.01875	0.01983	0.27769	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	71.2333	71.2333	0.00091	0.00280	0.08070	72.1720
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00349	0.00120	0.07953	0.02472	0.00048	0.00138	0.01827	0.01965	0.00092	0.00503	0.00595	—	58.4862	58.4862	0.00161	0.00943	0.04689	61.3826

3.118. Site Preparation (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36187	1.14435	10.5486	13.7606	0.02261	0.40441	—	0.40441	0.37205	—	0.37205	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—

Onsite truck	0.00282	0.00159	0.04004	0.02487	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3214	15.3214	0.00106	0.00247	0.02295	16.1066
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36187	1.14435	10.5486	13.7606	0.02261	0.40441	—	0.40441	0.37205	—	0.37205	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04246	0.02557	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3976	15.3976	0.00101	0.00247	0.00060	16.1593
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97276	0.81739	7.53469	9.82902	0.01615	0.28886	—	0.28886	0.26575	—	0.26575	—	1,749.17	1,749.17	0.07095	0.01419	—	1,755.18
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02957	0.01798	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.9667	10.9667	0.00072	0.00176	0.00708	11.5175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17753	0.14917	1.37508	1.79380	0.00295	0.05272	—	0.05272	0.04850	—	0.04850	—	289.596	289.596	0.01175	0.00235	—	290.590
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00540	0.00328	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.81566	1.81566	0.00012	0.00029	0.00117	1.90685

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17417	0.15157	0.12842	2.55681	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	638.638	638.638	0.00661	0.02370	1.58056	647.447
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02716	0.00952	0.58237	0.18836	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	494.436	494.436	0.01376	0.07972	0.91804	519.454
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16865	0.14495	0.15322	2.04754	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	592.556	592.556	0.00772	0.02370	0.04112	599.852
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02628	0.00864	0.61430	0.19118	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	494.740	494.740	0.01358	0.07972	0.02381	518.860
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11968	0.10275	0.10866	1.52158	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	430.253	430.253	0.00551	0.01693	0.48742	435.923
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01915	0.00655	0.43576	0.13543	0.00265	0.00756	0.10009	0.10765	0.00504	0.02754	0.03258	—	353.260	353.260	0.00970	0.05694	0.28319	370.754
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02184	0.01875	0.01983	0.27769	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	71.2333	71.2333	0.00091	0.00280	0.08070	72.1720
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00349	0.00120	0.07953	0.02472	0.00048	0.00138	0.01827	0.01965	0.00092	0.00503	0.00595	—	58.4862	58.4862	0.00161	0.00943	0.04689	61.3826

3.119. Site Preparation (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.33645	1.12299	10.1948	13.5804	0.02261	0.39293	—	0.39293	0.36150	—	0.36150	—	2,448.85	2,448.85	0.09934	0.01987	—	2,457.26
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.03937	0.02478	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.9587	14.9587	0.00101	0.00238	0.02081	15.7144
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33645	1.12299	10.1948	13.5804	0.02261	0.39293	—	0.39293	0.36150	—	0.36150	—	2,448.85	2,448.85	0.09934	0.01987	—	2,457.26
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04180	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.0357	15.0357	0.00101	0.00238	0.00054	15.7711
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95461	0.80214	7.28201	9.70029	0.01615	0.28067	—	0.28067	0.25821	—	0.25821	—	1,749.18	1,749.18	0.07095	0.01419	—	1,755.18
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02913	0.01789	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.7079	10.7079	0.00072	0.00170	0.00640	11.2392
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17422	0.14639	1.32897	1.77030	0.00295	0.05122	—	0.05122	0.04712	—	0.04712	—	289.597	289.597	0.01175	0.00235	—	290.590

Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00532	0.00326	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.77281	1.77281	0.00012	0.00028	0.00106	1.86078
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16755	0.14495	0.12732	2.39532	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	628.580	628.580	0.00661	0.00331	1.40268	631.133
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02716	0.00952	0.56703	0.18166	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	481.366	481.366	0.01358	0.07619	0.83229	505.243
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16204	0.13834	0.15212	1.91912	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	583.260	583.260	0.00772	0.02370	0.03645	590.552
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02628	0.00864	0.59895	0.18431	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	481.674	481.674	0.01358	0.07619	0.02154	504.740
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11496	0.09803	0.10708	1.43222	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	423.500	423.500	0.00472	0.01693	0.43326	429.096
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01915	0.00655	0.42493	0.13051	0.00265	0.00756	0.10009	0.10765	0.00504	0.02754	0.03258	—	343.925	343.925	0.00970	0.05442	0.25617	360.642
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02098	0.01789	0.01954	0.26138	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	70.1152	70.1152	0.00078	0.00280	0.07173	71.0417
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00349	0.00120	0.07755	0.02382	0.00048	0.00138	0.01827	0.01965	0.00092	0.00503	0.00595	—	56.9407	56.9407	0.00161	0.00901	0.04241	59.7083

3.120. Site Preparation (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33645	1.12299	10.1948	13.5804	0.02261	0.39293	—	0.39293	0.36150	—	0.36150	—	2,448.85	2,448.85	0.09934	0.01987	—	2,457.26
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.03937	0.02478	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.9587	14.9587	0.00101	0.00238	0.02081	15.7144
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33645	1.12299	10.1948	13.5804	0.02261	0.39293	—	0.39293	0.36150	—	0.36150	—	2,448.85	2,448.85	0.09934	0.01987	—	2,457.26
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04180	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.0357	15.0357	0.00101	0.00238	0.00054	15.7711
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95461	0.80214	7.28201	9.70029	0.01615	0.28067	—	0.28067	0.25821	—	0.25821	—	1,749.18	1,749.18	0.07095	0.01419	—	1,755.18
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—

Onsite truck	0.00195	0.00107	0.02913	0.01789	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.7079	10.7079	0.00072	0.00170	0.00640	11.2392
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17422	0.14639	1.32897	1.77030	0.00295	0.05122	—	0.05122	0.04712	—	0.04712	—	289.597	289.597	0.01175	0.00235	—	290.590
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00532	0.00326	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.77281	1.77281	0.00012	0.00028	0.00106	1.86078
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16755	0.14495	0.12732	2.39532	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	628.580	628.580	0.00661	0.00331	1.40268	631.133
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02716	0.00952	0.56703	0.18166	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	481.366	481.366	0.01358	0.07619	0.83229	505.243
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16204	0.13834	0.15212	1.91912	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	583.260	583.260	0.00772	0.02370	0.03645	590.552
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02628	0.00864	0.59895	0.18431	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	481.674	481.674	0.01358	0.07619	0.02154	504.740
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11496	0.09803	0.10708	1.43222	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	423.500	423.500	0.00472	0.01693	0.43326	429.096
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01915	0.00655	0.42493	0.13051	0.00265	0.00756	0.10009	0.10765	0.00504	0.02754	0.03258	—	343.925	343.925	0.00970	0.05442	0.25617	360.642
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02098	0.01789	0.01954	0.26138	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	70.1152	70.1152	0.00078	0.00280	0.07173	71.0417

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00349	0.00120	0.07755	0.02382	0.00048	0.00138	0.01827	0.01965	0.00092	0.00503	0.00595	—	56.9407	56.9407	0.00161	0.00901	0.04241	59.7083

3.121. Site Preparation (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26616	1.06392	9.48215	12.8614	0.02262	0.35072	—	0.35072	0.32266	—	0.32266	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03880	0.02474	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6170	14.6170	0.00101	0.00238	0.01866	15.3705
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26616	1.06392	9.48215	12.8614	0.02262	0.35072	—	0.35072	0.32266	—	0.32266	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04123	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6947	14.6947	0.00097	0.00238	0.00048	15.4290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.90688	0.76203	6.79152	9.21188	0.01620	0.25120	—	0.25120	0.23111	—	0.23111	—	1,754.05	1,754.05	0.07115	0.01423	—	1,760.07
Dust From Material Movement	—	—	—	—	—	—	1.22020	1.22020	—	0.62710	0.62710	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02871	0.01794	0.00009	0.00019	0.73496	0.73515	0.00013	0.07352	0.07364	—	10.4927	10.4927	0.00073	0.00171	0.00576	11.0248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16550	0.13907	1.23945	1.68117	0.00296	0.04584	—	0.04584	0.04218	—	0.04218	—	290.402	290.402	0.01178	0.00236	—	291.399
Dust From Material Movement	—	—	—	—	—	—	0.22269	0.22269	—	0.11445	0.11445	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00524	0.00327	0.00002	0.00003	0.13413	0.13416	0.00002	0.01342	0.01344	—	1.73718	1.73718	0.00012	0.00028	0.00095	1.82528
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15984	0.13724	0.10582	2.25643	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	619.471	619.471	0.00551	0.00331	1.23645	621.831
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02346	0.00952	0.55204	0.17831	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	468.954	468.954	0.01358	0.07619	0.74654	492.745
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15543	0.13173	0.12952	1.81551	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	574.833	574.833	0.00661	0.02370	0.03208	582.093
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02258	0.00864	0.58396	0.18113	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	469.265	469.265	0.01340	0.07619	0.01932	492.325
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11132	0.09435	0.09198	1.34890	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	418.525	418.525	0.00474	0.00237	0.38223	419.732

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01655	0.00657	0.41270	0.12860	0.00265	0.00758	0.10037	0.10795	0.00505	0.02762	0.03267	—	335.978	335.978	0.00973	0.05457	0.23050	352.714
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02032	0.01722	0.01679	0.24617	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	69.2916	69.2916	0.00078	0.00039	0.06328	69.4913
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00302	0.00120	0.07532	0.02347	0.00048	0.00138	0.01832	0.01970	0.00092	0.00504	0.00596	—	55.6251	55.6251	0.00161	0.00903	0.03816	58.3959

3.122. Site Preparation (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26616	1.06392	9.48215	12.8614	0.02262	0.35072	—	0.35072	0.32266	—	0.32266	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03880	0.02474	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6170	14.6170	0.00101	0.00238	0.01866	15.3705
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26616	1.06392	9.48215	12.8614	0.02262	0.35072	—	0.35072	0.32266	—	0.32266	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36

Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04123	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6947	14.6947	0.00097	0.00238	0.00048	15.4290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90688	0.76203	6.79152	9.21188	0.01620	0.25120	—	0.25120	0.23111	—	0.23111	—	1,754.05	1,754.05	0.07115	0.01423	—	1,760.07
Dust From Material Movement	—	—	—	—	—	—	1.22020	1.22020	—	0.62710	0.62710	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02871	0.01794	0.00009	0.00019	0.73496	0.73515	0.00013	0.07352	0.07364	—	10.4927	10.4927	0.00073	0.00171	0.00576	11.0248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16550	0.13907	1.23945	1.68117	0.00296	0.04584	—	0.04584	0.04218	—	0.04218	—	290.402	290.402	0.01178	0.00236	—	291.399
Dust From Material Movement	—	—	—	—	—	—	0.22269	0.22269	—	0.11445	0.11445	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00524	0.00327	0.00002	0.00003	0.13413	0.13416	0.00002	0.01342	0.01344	—	1.73718	1.73718	0.00012	0.00028	0.00095	1.82528
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15984	0.13724	0.10582	2.25643	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	619.471	619.471	0.00551	0.00331	1.23645	621.831
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02346	0.00952	0.55204	0.17831	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	468.954	468.954	0.01358	0.07619	0.74654	492.745

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15543	0.13173	0.12952	1.81551	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	574.833	574.833	0.00661	0.02370	0.03208	582.093
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02258	0.00864	0.58396	0.18113	0.00370	0.01058	0.14832	0.15890	0.00705	0.04061	0.04766	—	469.265	469.265	0.01340	0.07619	0.01932	492.325
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11132	0.09435	0.09198	1.34890	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	418.525	418.525	0.00474	0.00237	0.38223	419.732
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01655	0.00657	0.41270	0.12860	0.00265	0.00758	0.10037	0.10795	0.00505	0.02762	0.03267	—	335.978	335.978	0.00973	0.05457	0.23050	352.714
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02032	0.01722	0.01679	0.24617	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	69.2916	69.2916	0.00078	0.00039	0.06328	69.4913
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00302	0.00120	0.07532	0.02347	0.00048	0.00138	0.01832	0.01970	0.00092	0.00504	0.00596	—	55.6251	55.6251	0.00161	0.00903	0.03816	58.3959

3.123. Site Preparation (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23174	1.03500	9.07063	12.4039	0.02262	0.32609	—	0.32609	0.30000	—	0.30000	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—

Onsite truck	0.00269	0.00159	0.03818	0.02474	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3080	14.3080	0.00097	0.00229	0.01639	15.0319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23174	1.03500	9.07063	12.4039	0.02262	0.32609	—	0.32609	0.30000	—	0.30000	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04061	0.02540	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3865	14.3865	0.00097	0.00229	0.00043	15.0945
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.87981	0.73929	6.47902	8.85996	0.01615	0.23292	—	0.23292	0.21429	—	0.21429	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02819	0.01789	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.2436	10.2436	0.00069	0.00164	0.00507	10.7540
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16057	0.13492	1.18242	1.61694	0.00295	0.04251	—	0.04251	0.03911	—	0.03911	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00514	0.00326	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.69594	1.69594	0.00011	0.00027	0.00084	1.78045

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13393	0.13173	0.10472	2.14014	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	611.332	611.332	0.00551	0.00331	1.08773	613.543
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02346	0.00952	0.53687	0.17514	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	457.693	457.693	0.01340	0.07266	0.65574	480.337
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13062	0.12732	0.12842	1.71299	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.275	567.275	0.00661	0.00331	0.02817	568.454
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02258	0.00864	0.56879	0.17778	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	458.007	458.007	0.01340	0.07266	0.01705	480.013
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09173	0.09015	0.07637	1.27356	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	411.899	411.899	0.00472	0.00236	0.33536	413.056
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01650	0.00655	0.40074	0.12598	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	327.018	327.018	0.00957	0.05190	0.20285	342.927
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01674	0.01645	0.01394	0.23243	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	68.1946	68.1946	0.00078	0.00039	0.05552	68.3862
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00301	0.00120	0.07313	0.02299	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	54.1415	54.1415	0.00159	0.00859	0.03358	56.7755

3.124. Site Preparation (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.23174	1.03500	9.07063	12.4039	0.02262	0.32609	—	0.32609	0.30000	—	0.30000	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03818	0.02474	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3080	14.3080	0.00097	0.00229	0.01639	15.0319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23174	1.03500	9.07063	12.4039	0.02262	0.32609	—	0.32609	0.30000	—	0.30000	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04061	0.02540	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3865	14.3865	0.00097	0.00229	0.00043	15.0945
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.87981	0.73929	6.47902	8.85996	0.01615	0.23292	—	0.23292	0.21429	—	0.21429	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02819	0.01789	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.2436	10.2436	0.00069	0.00164	0.00507	10.7540
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16057	0.13492	1.18242	1.61694	0.00295	0.04251	—	0.04251	0.03911	—	0.03911	—	289.609	289.609	0.01175	0.00235	—	290.603

Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00514	0.00326	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.69594	1.69594	0.00011	0.00027	0.00084	1.78045
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13393	0.13173	0.10472	2.14014	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	611.332	611.332	0.00551	0.00331	1.08773	613.543
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02346	0.00952	0.53687	0.17514	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	457.693	457.693	0.01340	0.07266	0.65574	480.337
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13062	0.12732	0.12842	1.71299	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.275	567.275	0.00661	0.00331	0.02817	568.454
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02258	0.00864	0.56879	0.17778	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	458.007	458.007	0.01340	0.07266	0.01705	480.013
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09173	0.09015	0.07637	1.27356	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	411.899	411.899	0.00472	0.00236	0.33536	413.056
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01650	0.00655	0.40074	0.12598	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	327.018	327.018	0.00957	0.05190	0.20285	342.927
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01674	0.01645	0.01394	0.23243	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	68.1946	68.1946	0.00078	0.00039	0.05552	68.3862
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00301	0.00120	0.07313	0.02299	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	54.1415	54.1415	0.00159	0.00859	0.03358	56.7755

3.125. Site Preparation (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20542	1.01289	8.84926	12.3057	0.02262	0.30825	—	0.30825	0.28359	—	0.28359	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03774	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.0326	14.0326	0.00097	0.00229	0.01438	14.7544
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20542	1.01289	8.84926	12.3057	0.02262	0.30825	—	0.30825	0.28359	—	0.28359	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00141	0.04012	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.1119	14.1119	0.00093	0.00229	0.00037	14.8187
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86101	0.72349	6.32090	8.78978	0.01615	0.22018	—	0.22018	0.20256	—	0.20256	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—

Onsite truck	0.00186	0.00107	0.02790	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.0471	10.0471	0.00069	0.00164	0.00442	10.5568
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15714	0.13204	1.15356	1.60413	0.00295	0.04018	—	0.04018	0.03697	—	0.03697	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00509	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.66341	1.66341	0.00011	0.00027	0.00073	1.74781
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12732	0.12511	0.08322	2.02384	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	603.772	603.772	0.00551	0.00331	0.94775	605.843
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02346	0.00952	0.52558	0.16843	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	447.613	447.613	0.01340	0.07266	0.57504	470.177
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12401	0.12070	0.10692	1.61158	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	560.256	560.256	0.00661	0.00331	0.02455	561.431
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02258	0.00882	0.55415	0.17108	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	447.930	447.930	0.01323	0.07266	0.01488	469.930
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08858	0.08700	0.07559	1.20270	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	406.815	406.815	0.00394	0.00236	0.29162	407.909
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01650	0.00655	0.39280	0.12107	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	319.819	319.819	0.00957	0.05190	0.17691	335.702
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01617	0.01588	0.01379	0.21949	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	67.3528	67.3528	0.00065	0.00039	0.04828	67.5339

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00301	0.00120	0.07169	0.02209	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	52.9497	52.9497	0.00159	0.00859	0.02929	55.5793

3.126. Site Preparation (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20542	1.01289	8.84926	12.3057	0.02262	0.30825	—	0.30825	0.28359	—	0.28359	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03774	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.0326	14.0326	0.00097	0.00229	0.01438	14.7544
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20542	1.01289	8.84926	12.3057	0.02262	0.30825	—	0.30825	0.28359	—	0.28359	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00141	0.04012	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.1119	14.1119	0.00093	0.00229	0.00037	14.8187
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.86101	0.72349	6.32090	8.78978	0.01615	0.22018	—	0.22018	0.20256	—	0.20256	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02790	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.0471	10.0471	0.00069	0.00164	0.00442	10.5568
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15714	0.13204	1.15356	1.60413	0.00295	0.04018	—	0.04018	0.03697	—	0.03697	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00509	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.66341	1.66341	0.00011	0.00027	0.00073	1.74781
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12732	0.12511	0.08322	2.02384	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	603.772	603.772	0.00551	0.00331	0.94775	605.843
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02346	0.00952	0.52558	0.16843	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	447.613	447.613	0.01340	0.07266	0.57504	470.177
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12401	0.12070	0.10692	1.61158	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	560.256	560.256	0.00661	0.00331	0.02455	561.431
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02258	0.00882	0.55415	0.17108	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	447.930	447.930	0.01323	0.07266	0.01488	469.930
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08858	0.08700	0.07559	1.20270	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	406.815	406.815	0.00394	0.00236	0.29162	407.909

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01650	0.00655	0.39280	0.12107	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	319.819	319.819	0.00957	0.05190	0.17691	335.702
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01617	0.01588	0.01379	0.21949	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	67.3528	67.3528	0.00065	0.00039	0.04828	67.5339
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00301	0.00120	0.07169	0.02209	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	52.9497	52.9497	0.00159	0.00859	0.02929	55.5793

3.127. Site Preparation (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15849	0.97345	8.36622	11.9023	0.02262	0.27820	—	0.27820	0.25595	—	0.25595	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03730	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.7908	13.7908	0.00084	0.00220	0.01241	14.4811
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15849	0.97345	8.36622	11.9023	0.02262	0.27820	—	0.27820	0.25595	—	0.25595	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36

Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00141	0.03973	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.8709	13.8709	0.00084	0.00220	0.00032	14.5492
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82749	0.69532	5.97587	8.50165	0.01616	0.19872	—	0.19872	0.18282	—	0.18282	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00107	0.02759	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.87460	9.87460	0.00060	0.00157	0.00383	10.3627
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15102	0.12690	1.09060	1.55155	0.00295	0.03627	—	0.03627	0.03336	—	0.03336	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00020	0.00504	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.63485	1.63485	0.00010	0.00026	0.00063	1.71566
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12511	0.12291	0.08322	1.93015	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	597.020	597.020	0.00441	0.00331	0.82236	598.938
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02346	0.00952	0.51429	0.16526	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	438.732	438.732	0.00970	0.06914	0.49635	460.073

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11850	0.10692	1.53387	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	553.984	553.984	0.00551	0.00331	0.02129	555.128
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02240	0.00882	0.54304	0.16790	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	439.052	439.052	0.00970	0.06914	0.01286	459.910
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08700	0.08543	0.07480	1.14877	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	402.264	402.264	0.00394	0.00236	0.25412	403.321
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01638	0.00655	0.38474	0.11880	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	313.476	313.476	0.00693	0.04938	0.15313	328.518
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01588	0.01559	0.01365	0.20965	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	66.5994	66.5994	0.00065	0.00039	0.04207	66.7743
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00299	0.00120	0.07021	0.02168	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	51.8995	51.8995	0.00115	0.00818	0.02535	54.3900

3.128. Site Preparation (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15849	0.97345	8.36622	11.9023	0.02262	0.27820	—	0.27820	0.25595	—	0.25595	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—

Onsite truck	0.00269	0.00159	0.03730	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.7908	13.7908	0.00084	0.00220	0.01241	14.4811
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15849	0.97345	8.36622	11.9023	0.02262	0.27820	—	0.27820	0.25595	—	0.25595	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00141	0.03973	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.8709	13.8709	0.00084	0.00220	0.00032	14.5492
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82749	0.69532	5.97587	8.50165	0.01616	0.19872	—	0.19872	0.18282	—	0.18282	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00107	0.02759	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.87460	9.87460	0.00060	0.00157	0.00383	10.3627
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15102	0.12690	1.09060	1.55155	0.00295	0.03627	—	0.03627	0.03336	—	0.03336	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00020	0.00504	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.63485	1.63485	0.00010	0.00026	0.00063	1.71566

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12511	0.12291	0.08322	1.93015	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	597.020	597.020	0.00441	0.00331	0.82236	598.938
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02346	0.00952	0.51429	0.16526	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	438.732	438.732	0.00970	0.06914	0.49635	460.073
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11850	0.10692	1.53387	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	553.984	553.984	0.00551	0.00331	0.02129	555.128
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02240	0.00882	0.54304	0.16790	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	439.052	439.052	0.00970	0.06914	0.01286	459.910
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08700	0.08543	0.07480	1.14877	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	402.264	402.264	0.00394	0.00236	0.25412	403.321
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01638	0.00655	0.38474	0.11880	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	313.476	313.476	0.00693	0.04938	0.15313	328.518
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01588	0.01559	0.01365	0.20965	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	66.5994	66.5994	0.00065	0.00039	0.04207	66.7743
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00299	0.00120	0.07021	0.02168	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	51.8995	51.8995	0.00115	0.00818	0.02535	54.3900

3.129. Site Preparation (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.11085	0.93343	7.94736	11.5112	0.02262	0.25304	—	0.25304	0.23280	—	0.23280	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00159	0.03686	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.5769	13.5769	0.00084	0.00216	0.01068	14.2524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11085	0.93343	7.94736	11.5112	0.02262	0.25304	—	0.25304	0.23280	—	0.23280	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03937	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.6578	13.6578	0.00084	0.00220	0.00028	14.3360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79564	0.66856	5.69224	8.24479	0.01620	0.18124	—	0.18124	0.16674	—	0.16674	—	1,754.05	1,754.05	0.07115	0.01423	—	1,760.07
Dust From Material Movement	—	—	—	—	—	—	1.22020	1.22020	—	0.62710	0.62710	—	—	—	—	—	—	—
Onsite truck	0.00177	0.00107	0.02735	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.74871	9.74871	0.00060	0.00158	0.00331	10.2376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14520	0.12201	1.03883	1.50467	0.00296	0.03308	—	0.03308	0.03043	—	0.03043	—	290.402	290.402	0.01178	0.00236	—	291.399

Dust From Material Movement	—	—	—	—	—	—	0.22269	0.22269	—	0.11445	0.11445	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00499	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.61401	1.61401	0.00010	0.00026	0.00055	1.69495
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11960	0.08212	1.83645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	591.029	591.029	0.00441	0.00331	0.70863	592.833
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00952	0.50301	0.16208	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	430.787	430.787	0.00970	0.06896	0.42724	452.007
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11850	0.11629	0.10582	1.45726	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	548.413	548.413	0.00551	0.00331	0.01837	549.554
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01887	0.00882	0.53528	0.16473	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	431.111	431.111	0.00970	0.06914	0.01110	451.967
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08487	0.08329	0.06040	1.09783	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	399.305	399.305	0.00395	0.00237	0.21931	400.329
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01390	0.00657	0.37771	0.11698	0.00265	0.00505	0.10037	0.10542	0.00505	0.02762	0.03267	—	308.645	308.645	0.00695	0.04952	0.13223	323.708
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01549	0.01520	0.01102	0.20035	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	66.1095	66.1095	0.00065	0.00039	0.03631	66.2791
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00254	0.00120	0.06893	0.02135	0.00048	0.00092	0.01832	0.01924	0.00092	0.00504	0.00596	—	51.0998	51.0998	0.00115	0.00820	0.02189	53.5935

3.130. Site Preparation (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11085	0.93343	7.94736	11.5112	0.02262	0.25304	—	0.25304	0.23280	—	0.23280	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00159	0.03686	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.5769	13.5769	0.00084	0.00216	0.01068	14.2524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11085	0.93343	7.94736	11.5112	0.02262	0.25304	—	0.25304	0.23280	—	0.23280	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03937	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.6578	13.6578	0.00084	0.00220	0.00028	14.3360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79564	0.66856	5.69224	8.24479	0.01620	0.18124	—	0.18124	0.16674	—	0.16674	—	1,754.05	1,754.05	0.07115	0.01423	—	1,760.07
Dust From Material Movement	—	—	—	—	—	—	1.22020	1.22020	—	0.62710	0.62710	—	—	—	—	—	—	—

Onsite truck	0.00177	0.00107	0.02735	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.74871	9.74871	0.00060	0.00158	0.00331	10.2376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14520	0.12201	1.03883	1.50467	0.00296	0.03308	—	0.03308	0.03043	—	0.03043	—	290.402	290.402	0.01178	0.00236	—	291.399
Dust From Material Movement	—	—	—	—	—	—	0.22269	0.22269	—	0.11445	0.11445	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00499	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.61401	1.61401	0.00010	0.00026	0.00055	1.69495
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11960	0.08212	1.83645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	591.029	591.029	0.00441	0.00331	0.70863	592.833
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00952	0.50301	0.16208	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	430.787	430.787	0.00970	0.06896	0.42724	452.007
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11850	0.11629	0.10582	1.45726	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	548.413	548.413	0.00551	0.00331	0.01837	549.554
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01887	0.00882	0.53528	0.16473	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	431.111	431.111	0.00970	0.06914	0.01110	451.967
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08487	0.08329	0.06040	1.09783	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	399.305	399.305	0.00395	0.00237	0.21931	400.329
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01390	0.00657	0.37771	0.11698	0.00265	0.00505	0.10037	0.10542	0.00505	0.02762	0.03267	—	308.645	308.645	0.00695	0.04952	0.13223	323.708
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01549	0.01520	0.01102	0.20035	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	66.1095	66.1095	0.00065	0.00039	0.03631	66.2791

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00254	0.00120	0.06893	0.02135	0.00048	0.00092	0.01832	0.01924	0.00092	0.00504	0.00596	—	51.0998	51.0998	0.00115	0.00820	0.02189	53.5935

3.131. Site Preparation (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10867	0.93159	7.94287	11.5859	0.02262	0.25293	—	0.25293	0.23269	—	0.23269	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03655	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3968	13.3968	0.00079	0.00216	0.00917	14.0697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10867	0.93159	7.94287	11.5859	0.02262	0.25293	—	0.25293	0.23269	—	0.23269	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03898	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.4784	13.4784	0.00079	0.00220	0.00024	14.1555
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.79191	0.66542	5.67348	8.27566	0.01616	0.18066	—	0.18066	0.16621	—	0.16621	—	1,749.17	1,749.17	0.07095	0.01419	—	1,755.18
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02705	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.59364	9.59364	0.00057	0.00157	0.00283	10.0799
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14452	0.12144	1.03541	1.51031	0.00295	0.03297	—	0.03297	0.03033	—	0.03033	—	289.596	289.596	0.01175	0.00235	—	290.590
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00494	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.58834	1.58834	0.00009	0.00026	0.00047	1.66884
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11740	0.11519	0.08212	1.76645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	585.661	585.661	0.00441	0.00331	0.60948	587.367
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00970	0.49542	0.15891	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	424.057	424.057	0.00952	0.06896	0.36671	445.212
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11409	0.11188	0.08433	1.40324	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	543.405	543.405	0.00551	0.00331	0.01578	544.544
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01887	0.00882	0.52417	0.16173	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	424.383	424.383	0.00952	0.06914	0.00953	445.234
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08149	0.07992	0.05945	1.04247	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	394.596	394.596	0.00394	0.00236	0.18768	395.586

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01386	0.00668	0.37126	0.11439	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	302.996	302.996	0.00680	0.04938	0.11313	317.995
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01487	0.01458	0.01085	0.19025	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	65.3298	65.3298	0.00065	0.00039	0.03107	65.4937
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00253	0.00122	0.06775	0.02088	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	50.1644	50.1644	0.00113	0.00818	0.01873	52.6477

3.132. Site Preparation (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10867	0.93159	7.94287	11.5859	0.02262	0.25293	—	0.25293	0.23269	—	0.23269	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03655	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3968	13.3968	0.00079	0.00216	0.00917	14.0697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10867	0.93159	7.94287	11.5859	0.02262	0.25293	—	0.25293	0.23269	—	0.23269	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25

Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03898	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.4784	13.4784	0.00079	0.00220	0.00024	14.1555
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79191	0.66542	5.67348	8.27566	0.01616	0.18066	—	0.18066	0.16621	—	0.16621	—	1,749.17	1,749.17	0.07095	0.01419	—	1,755.18
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02705	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.59364	9.59364	0.00057	0.00157	0.00283	10.0799
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14452	0.12144	1.03541	1.51031	0.00295	0.03297	—	0.03297	0.03033	—	0.03033	—	289.596	289.596	0.01175	0.00235	—	290.590
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00494	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.58834	1.58834	0.00009	0.00026	0.00047	1.66884
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11740	0.11519	0.08212	1.76645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	585.661	585.661	0.00441	0.00331	0.60948	587.367
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00970	0.49542	0.15891	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	424.057	424.057	0.00952	0.06896	0.36671	445.212

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11409	0.11188	0.08433	1.40324	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	543.405	543.405	0.00551	0.00331	0.01578	544.544
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01887	0.00882	0.52417	0.16173	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	424.383	424.383	0.00952	0.06914	0.00953	445.234
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08149	0.07992	0.05945	1.04247	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	394.596	394.596	0.00394	0.00236	0.18768	395.586
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01386	0.00668	0.37126	0.11439	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	302.996	302.996	0.00680	0.04938	0.11313	317.995
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01487	0.01458	0.01085	0.19025	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	65.3298	65.3298	0.00065	0.00039	0.03107	65.4937
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00253	0.00122	0.06775	0.02088	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	50.1644	50.1644	0.00113	0.00818	0.01873	52.6477

3.133. Site Preparation (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05905	0.88990	7.39928	11.0400	0.02262	0.22832	—	0.22832	0.21005	—	0.21005	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—

Onsite truck	0.00256	0.00163	0.03624	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.2398	13.2398	0.00079	0.00207	0.00787	13.8850
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05905	0.88990	7.39928	11.0400	0.02262	0.22832	—	0.22832	0.21005	—	0.21005	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03876	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3220	13.3220	0.00079	0.00212	0.00020	13.9728
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75646	0.63564	5.28520	7.88569	0.01616	0.16308	—	0.16308	0.15004	—	0.15004	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02686	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.48167	9.48167	0.00057	0.00148	0.00242	9.93938
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13805	0.11600	0.96455	1.43914	0.00295	0.02976	—	0.02976	0.02738	—	0.02738	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00490	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.56980	1.56980	0.00009	0.00025	0.00040	1.64558

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10968	0.08102	1.69646	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	580.914	580.914	0.00441	0.00331	0.52199	582.532
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00970	0.48784	0.15591	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	418.137	418.137	0.00952	0.06543	0.31476	438.189
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10858	0.08433	1.35143	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	538.979	538.979	0.00551	0.00331	0.01350	540.116
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01887	0.00882	0.51694	0.15856	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	418.466	418.466	0.00952	0.06561	0.00817	438.264
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07834	0.07756	0.05945	1.00625	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	391.392	391.392	0.00315	0.00236	0.16081	392.335
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01386	0.00668	0.36597	0.11212	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	298.768	298.768	0.00680	0.04674	0.09692	312.963
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01430	0.01415	0.01085	0.18364	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.7994	64.7994	0.00052	0.00039	0.02662	64.9556
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00253	0.00122	0.06679	0.02046	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	49.4644	49.4644	0.00113	0.00774	0.01605	51.8146

3.134. Site Preparation (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.05905	0.88990	7.39928	11.0400	0.02262	0.22832	—	0.22832	0.21005	—	0.21005	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03624	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.2398	13.2398	0.00079	0.00207	0.00787	13.8850
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05905	0.88990	7.39928	11.0400	0.02262	0.22832	—	0.22832	0.21005	—	0.21005	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03876	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3220	13.3220	0.00079	0.00212	0.00020	13.9728
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75646	0.63564	5.28520	7.88569	0.01616	0.16308	—	0.16308	0.15004	—	0.15004	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02686	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.48167	9.48167	0.00057	0.00148	0.00242	9.93938
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13805	0.11600	0.96455	1.43914	0.00295	0.02976	—	0.02976	0.02738	—	0.02738	—	289.609	289.609	0.01175	0.00235	—	290.603

Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00490	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.56980	1.56980	0.00009	0.00025	0.00040	1.64558
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10968	0.08102	1.69646	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	580.914	580.914	0.00441	0.00331	0.52199	582.532
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00970	0.48784	0.15591	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	418.137	418.137	0.00952	0.06543	0.31476	438.189
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10858	0.08433	1.35143	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	538.979	538.979	0.00551	0.00331	0.01350	540.116
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01887	0.00882	0.51694	0.15856	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	418.466	418.466	0.00952	0.06561	0.00817	438.264
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07834	0.07756	0.05945	1.00625	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	391.392	391.392	0.00315	0.00236	0.16081	392.335
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01386	0.00668	0.36597	0.11212	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	298.768	298.768	0.00680	0.04674	0.09692	312.963
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01430	0.01415	0.01085	0.18364	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.7994	64.7994	0.00052	0.00039	0.02662	64.9556
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00253	0.00122	0.06679	0.02046	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	49.4644	49.4644	0.00113	0.00774	0.01605	51.8146

3.135. Site Preparation (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04000	0.87389	7.21956	10.9327	0.02262	0.21837	—	0.21837	0.20090	—	0.20090	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03594	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1081	13.1081	0.00075	0.00207	0.00673	13.7511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04000	0.87389	7.21956	10.9327	0.02262	0.21837	—	0.21837	0.20090	—	0.20090	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03845	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1911	13.1911	0.00075	0.00212	0.00018	13.8407
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74286	0.62421	5.15683	7.80907	0.01616	0.15598	—	0.15598	0.14350	—	0.14350	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—

Onsite truck	0.00173	0.00110	0.02664	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.38782	9.38782	0.00054	0.00148	0.00208	9.84440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13557	0.11392	0.94112	1.42515	0.00295	0.02847	—	0.02847	0.02619	—	0.02619	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.55426	1.55426	0.00009	0.00025	0.00034	1.62985
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10637	0.10527	0.06063	1.64796	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	576.766	576.766	0.00441	0.00331	0.44326	578.305
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00970	0.48025	0.15274	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	413.134	413.134	0.00935	0.06543	0.26936	433.136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10527	0.10307	0.08322	1.29963	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	535.091	535.091	0.00441	0.00331	0.01152	536.198
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01870	0.00882	0.50936	0.15538	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	413.466	413.466	0.00935	0.06561	0.00701	433.258
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07441	0.07362	0.05866	0.97082	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	388.572	388.572	0.00315	0.00236	0.13706	389.492
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01373	0.00668	0.36055	0.10985	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	295.195	295.195	0.00668	0.04674	0.08323	309.373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01358	0.01344	0.01071	0.17717	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.3326	64.3326	0.00052	0.00039	0.02269	64.4848

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00251	0.00122	0.06580	0.02005	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	48.8729	48.8729	0.00111	0.00774	0.01378	51.2203

3.136. Site Preparation (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04000	0.87389	7.21956	10.9327	0.02262	0.21837	—	0.21837	0.20090	—	0.20090	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03594	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1081	13.1081	0.00075	0.00207	0.00673	13.7511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04000	0.87389	7.21956	10.9327	0.02262	0.21837	—	0.21837	0.20090	—	0.20090	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03845	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1911	13.1911	0.00075	0.00212	0.00018	13.8407
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.74286	0.62421	5.15683	7.80907	0.01616	0.15598	—	0.15598	0.14350	—	0.14350	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00110	0.02664	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.38782	9.38782	0.00054	0.00148	0.00208	9.84440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13557	0.11392	0.94112	1.42515	0.00295	0.02847	—	0.02847	0.02619	—	0.02619	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.55426	1.55426	0.00009	0.00025	0.00034	1.62985
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10637	0.10527	0.06063	1.64796	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	576.766	576.766	0.00441	0.00331	0.44326	578.305
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00970	0.48025	0.15274	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	413.134	413.134	0.00935	0.06543	0.26936	433.136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10527	0.10307	0.08322	1.29963	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	535.091	535.091	0.00441	0.00331	0.01152	536.198
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01870	0.00882	0.50936	0.15538	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	413.466	413.466	0.00935	0.06561	0.00701	433.258
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07441	0.07362	0.05866	0.97082	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	388.572	388.572	0.00315	0.00236	0.13706	389.492

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01373	0.00668	0.36055	0.10985	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	295.195	295.195	0.00668	0.04674	0.08323	309.373
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01358	0.01344	0.01071	0.17717	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.3326	64.3326	0.00052	0.00039	0.02269	64.4848
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00251	0.00122	0.06580	0.02005	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	48.8729	48.8729	0.00111	0.00774	0.01378	51.2203

3.137. Site Preparation (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03073	0.86610	7.17026	10.8862	0.02262	0.21428	—	0.21428	0.19714	—	0.19714	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03580	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9956	12.9956	0.00075	0.00207	0.00576	13.6377
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03073	0.86610	7.17026	10.8862	0.02262	0.21428	—	0.21428	0.19714	—	0.19714	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25

Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03832	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.0793	13.0793	0.00075	0.00212	0.00015	13.7289
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73825	0.62033	5.13565	7.79717	0.01620	0.15348	—	0.15348	0.14120	—	0.14120	—	1,753.97	1,753.97	0.07115	0.01423	—	1,759.99
Dust From Material Movement	—	—	—	—	—	—	1.22020	1.22020	—	0.62710	0.62710	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00111	0.02662	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.33317	9.33317	0.00054	0.00148	0.00178	9.79069
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13473	0.11321	0.93726	1.42298	0.00296	0.02801	—	0.02801	0.02577	—	0.02577	—	290.389	290.389	0.01178	0.00236	—	291.386
Dust From Material Movement	—	—	—	—	—	—	0.22269	0.22269	—	0.11445	0.11445	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.54521	1.54521	0.00009	0.00025	0.00029	1.62096
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.05952	1.60166	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	573.137	573.137	0.00331	0.00331	0.37910	574.584
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00970	0.47655	0.14956	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	408.811	408.811	0.00935	0.06543	0.23052	428.774

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.08322	1.27152	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	531.702	531.702	0.00441	0.00331	0.00980	532.807
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01870	0.00882	0.50565	0.15221	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	409.146	409.146	0.00935	0.06561	0.00600	428.937
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07145	0.05606	0.05882	0.95335	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	387.182	387.182	0.00316	0.00237	0.11697	388.084
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01377	0.00670	0.35889	0.10788	0.00265	0.00505	0.10037	0.10542	0.00505	0.02762	0.03267	—	292.908	292.908	0.00670	0.04687	0.07117	307.113
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01304	0.01023	0.01073	0.17399	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	64.1024	64.1024	0.00052	0.00039	0.01937	64.2517
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00251	0.00122	0.06550	0.01969	0.00048	0.00092	0.01832	0.01924	0.00092	0.00504	0.00596	—	48.4943	48.4943	0.00111	0.00776	0.01178	50.8460

3.138. Site Preparation (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03073	0.86610	7.17026	10.8862	0.02262	0.21428	—	0.21428	0.19714	—	0.19714	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—

Onsite truck	0.00256	0.00163	0.03580	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9956	12.9956	0.00075	0.00207	0.00576	13.6377
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03073	0.86610	7.17026	10.8862	0.02262	0.21428	—	0.21428	0.19714	—	0.19714	—	2,448.84	2,448.84	0.09934	0.01987	—	2,457.25
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03832	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.0793	13.0793	0.00075	0.00212	0.00015	13.7289
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73825	0.62033	5.13565	7.79717	0.01620	0.15348	—	0.15348	0.14120	—	0.14120	—	1,753.97	1,753.97	0.07115	0.01423	—	1,759.99
Dust From Material Movement	—	—	—	—	—	—	1.22020	1.22020	—	0.62710	0.62710	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00111	0.02662	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.33317	9.33317	0.00054	0.00148	0.00178	9.79069
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13473	0.11321	0.93726	1.42298	0.00296	0.02801	—	0.02801	0.02577	—	0.02577	—	290.389	290.389	0.01178	0.00236	—	291.386
Dust From Material Movement	—	—	—	—	—	—	0.22269	0.22269	—	0.11445	0.11445	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.54521	1.54521	0.00009	0.00025	0.00029	1.62096

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.05952	1.60166	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	573.137	573.137	0.00331	0.00331	0.37910	574.584
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01975	0.00970	0.47655	0.14956	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	408.811	408.811	0.00935	0.06543	0.23052	428.774
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.08322	1.27152	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	531.702	531.702	0.00441	0.00331	0.00980	532.807
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01870	0.00882	0.50565	0.15221	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	409.146	409.146	0.00935	0.06561	0.00600	428.937
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07145	0.05606	0.05882	0.95335	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	387.182	387.182	0.00316	0.00237	0.11697	388.084
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01377	0.00670	0.35889	0.10788	0.00265	0.00505	0.10037	0.10542	0.00505	0.02762	0.03267	—	292.908	292.908	0.00670	0.04687	0.07117	307.113
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01304	0.01023	0.01073	0.17399	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	64.1024	64.1024	0.00052	0.00039	0.01937	64.2517
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00251	0.00122	0.06550	0.01969	0.00048	0.00092	0.01832	0.01924	0.00092	0.00504	0.00596	—	48.4943	48.4943	0.00111	0.00776	0.01178	50.8460

3.139. Site Preparation (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.98240	0.82549	6.74942	10.6486	0.02262	0.18856	—	0.18856	0.17347	—	0.17347	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00172	0.03713	0.02601	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9010	12.9010	0.00075	0.00207	0.00496	13.5423
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98240	0.82549	6.74942	10.6486	0.02262	0.18856	—	0.18856	0.17347	—	0.17347	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03818	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9855	12.9855	0.00075	0.00212	0.00013	13.6351
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70171	0.58963	4.82101	7.60614	0.01616	0.13468	—	0.13468	0.12391	—	0.12391	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00110	0.02636	0.01792	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.24036	9.24036	0.00054	0.00148	0.00153	9.69639
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12806	0.10761	0.87983	1.38812	0.00295	0.02458	—	0.02458	0.02261	—	0.02261	—	289.609	289.609	0.01175	0.00235	—	290.603

Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00481	0.00327	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.52985	1.52985	0.00009	0.00025	0.00025	1.60535
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09866	0.07606	0.05952	1.55536	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	569.820	569.820	0.00331	0.00331	0.32078	571.209
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02011	0.01005	0.49137	0.15803	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	405.131	405.131	0.00935	0.06543	0.19824	425.062
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09755	0.07496	0.08212	1.24341	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	528.605	528.605	0.00441	0.00331	0.00834	529.709
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01870	0.00899	0.50195	0.15274	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	405.469	405.469	0.00935	0.06561	0.00515	425.259
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06968	0.05433	0.04331	0.91689	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	383.883	383.883	0.00315	0.00236	0.09915	384.765
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01373	0.00668	0.35261	0.10796	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	289.480	289.480	0.00668	0.04674	0.06125	303.637
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01272	0.00991	0.00790	0.16733	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	63.5563	63.5563	0.00052	0.00039	0.01642	63.7023
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00251	0.00122	0.06435	0.01970	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	47.9268	47.9268	0.00111	0.00774	0.01014	50.2705

3.140. Site Preparation (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98240	0.82549	6.74942	10.6486	0.02262	0.18856	—	0.18856	0.17347	—	0.17347	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00172	0.03713	0.02601	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9010	12.9010	0.00075	0.00207	0.00496	13.5423
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98240	0.82549	6.74942	10.6486	0.02262	0.18856	—	0.18856	0.17347	—	0.17347	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03818	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9855	12.9855	0.00075	0.00212	0.00013	13.6351
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70171	0.58963	4.82101	7.60614	0.01616	0.13468	—	0.13468	0.12391	—	0.12391	—	1,749.25	1,749.25	0.07096	0.01419	—	1,755.26
Dust From Material Movement	—	—	—	—	—	—	1.21686	1.21686	—	0.62539	0.62539	—	—	—	—	—	—	—

Onsite truck	0.00173	0.00110	0.02636	0.01792	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.24036	9.24036	0.00054	0.00148	0.00153	9.69639
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12806	0.10761	0.87983	1.38812	0.00295	0.02458	—	0.02458	0.02261	—	0.02261	—	289.609	289.609	0.01175	0.00235	—	290.603
Dust From Material Movement	—	—	—	—	—	—	0.22208	0.22208	—	0.11413	0.11413	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00481	0.00327	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.52985	1.52985	0.00009	0.00025	0.00025	1.60535
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09866	0.07606	0.05952	1.55536	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	569.820	569.820	0.00331	0.00331	0.32078	571.209
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02011	0.01005	0.49137	0.15803	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	405.131	405.131	0.00935	0.06543	0.19824	425.062
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09755	0.07496	0.08212	1.24341	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	528.605	528.605	0.00441	0.00331	0.00834	529.709
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01870	0.00899	0.50195	0.15274	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	405.469	405.469	0.00935	0.06561	0.00515	425.259
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06968	0.05433	0.04331	0.91689	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	383.883	383.883	0.00315	0.00236	0.09915	384.765
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01373	0.00668	0.35261	0.10796	0.00265	0.00504	0.10009	0.10513	0.00504	0.02754	0.03258	—	289.480	289.480	0.00668	0.04674	0.06125	303.637
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01272	0.00991	0.00790	0.16733	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	63.5563	63.5563	0.00052	0.00039	0.01642	63.7023

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00251	0.00122	0.06435	0.01970	0.00048	0.00092	0.01827	0.01919	0.00092	0.00503	0.00595	—	47.9268	47.9268	0.00111	0.00774	0.01014	50.2705

3.141. Site Preparation (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97200	0.81675	6.61392	10.5080	0.02262	0.18118	—	0.18118	0.16668	—	0.16668	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03549	0.02478	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.8231	12.8231	0.00071	0.00207	0.00429	13.4625
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97200	0.81675	6.61392	10.5080	0.02262	0.18118	—	0.18118	0.16668	—	0.16668	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03796	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9082	12.9082	0.00071	0.00212	0.00011	13.5566
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.33858	0.28450	2.30387	3.66033	0.00788	0.06311	—	0.06311	0.05806	—	0.05806	—	853.061	853.061	0.03460	0.00692	—	855.988
Dust From Material Movement	—	—	—	—	—	—	0.59343	0.59343	—	0.30498	0.30498	—	—	—	—	—	—	—
Onsite truck	0.00084	0.00055	0.01282	0.00874	0.00005	0.00006	0.35744	0.35750	0.00006	0.03575	0.03582	—	4.47920	4.47920	0.00025	0.00072	0.00065	4.70110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06179	0.05192	0.42046	0.66801	0.00144	0.01152	—	0.01152	0.01060	—	0.01060	—	141.234	141.234	0.00573	0.00115	—	141.719
Dust From Material Movement	—	—	—	—	—	—	0.10830	0.10830	—	0.05566	0.05566	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00234	0.00159	0.00001	0.00001	0.06523	0.06524	0.00001	0.00653	0.00654	—	0.74158	0.74158	0.00004	0.00012	0.00011	0.77832
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09535	0.07385	0.05952	1.52946	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.039	567.039	0.00331	0.00331	0.27266	568.380
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01958	0.00988	0.46897	0.14674	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	402.057	402.057	0.00917	0.06543	0.17150	421.957
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09425	0.07165	0.06173	1.21640	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	526.004	526.004	0.00441	0.00331	0.00706	527.106
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01870	0.00899	0.49472	0.14956	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	402.397	402.397	0.00917	0.06561	0.00445	422.183
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03245	0.02496	0.02112	0.43773	0.00000	0.00000	0.21116	0.21116	0.00000	0.04924	0.04924	—	186.282	186.282	0.00154	0.00115	0.04104	186.705

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00670	0.00332	0.17073	0.05154	0.00129	0.00246	0.04881	0.05127	0.00246	0.01343	0.01589	—	140.101	140.101	0.00319	0.02279	0.02583	146.999
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00592	0.00455	0.00385	0.07989	0.00000	0.00000	0.03854	0.03854	0.00000	0.00899	0.00899	—	30.8411	30.8411	0.00025	0.00019	0.00679	30.9111
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00122	0.00061	0.03116	0.00941	0.00024	0.00045	0.00891	0.00936	0.00045	0.00245	0.00290	—	23.1953	23.1953	0.00053	0.00377	0.00428	24.3373

3.142. Site Preparation (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97200	0.81675	6.61392	10.5080	0.02262	0.18118	—	0.18118	0.16668	—	0.16668	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36
Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03549	0.02478	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.8231	12.8231	0.00071	0.00207	0.00429	13.4625
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97200	0.81675	6.61392	10.5080	0.02262	0.18118	—	0.18118	0.16668	—	0.16668	—	2,448.95	2,448.95	0.09934	0.01987	—	2,457.36

Dust From Material Movement	—	—	—	—	—	—	1.70361	1.70361	—	0.87555	0.87555	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03796	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9082	12.9082	0.00071	0.00212	0.00011	13.5566
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33858	0.28450	2.30387	3.66033	0.00788	0.06311	—	0.06311	0.05806	—	0.05806	—	853.061	853.061	0.03460	0.00692	—	855.988
Dust From Material Movement	—	—	—	—	—	—	0.59343	0.59343	—	0.30498	0.30498	—	—	—	—	—	—	—
Onsite truck	0.00084	0.00055	0.01282	0.00874	0.00005	0.00006	0.35744	0.35750	0.00006	0.03575	0.03582	—	4.47920	4.47920	0.00025	0.00072	0.00065	4.70110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06179	0.05192	0.42046	0.66801	0.00144	0.01152	—	0.01152	0.01060	—	0.01060	—	141.234	141.234	0.00573	0.00115	—	141.719
Dust From Material Movement	—	—	—	—	—	—	0.10830	0.10830	—	0.05566	0.05566	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00234	0.00159	0.00001	0.00001	0.06523	0.06524	0.00001	0.00653	0.00654	—	0.74158	0.74158	0.00004	0.00012	0.00011	0.77832
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09535	0.07385	0.05952	1.52946	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.039	567.039	0.00331	0.00331	0.27266	568.380
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01958	0.00988	0.46897	0.14674	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	402.057	402.057	0.00917	0.06543	0.17150	421.957

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09425	0.07165	0.06173	1.21640	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	526.004	526.004	0.00441	0.00331	0.00706	527.106
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01870	0.00899	0.49472	0.14956	0.00370	0.00705	0.14832	0.15537	0.00705	0.04061	0.04766	—	402.397	402.397	0.00917	0.06561	0.00445	422.183
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03245	0.02496	0.02112	0.43773	0.00000	0.00000	0.21116	0.21116	0.00000	0.04924	0.04924	—	186.282	186.282	0.00154	0.00115	0.04104	186.705
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00670	0.00332	0.17073	0.05154	0.00129	0.00246	0.04881	0.05127	0.00246	0.01343	0.01589	—	140.101	140.101	0.00319	0.02279	0.02583	146.999
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00592	0.00455	0.00385	0.07989	0.00000	0.00000	0.03854	0.03854	0.00000	0.00899	0.00899	—	30.8411	30.8411	0.00025	0.00019	0.00679	30.9111
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00122	0.00061	0.03116	0.00941	0.00024	0.00045	0.00891	0.00936	0.00045	0.00245	0.00290	—	23.1953	23.1953	0.00053	0.00377	0.00428	24.3373

3.143. Grading (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.77771	1.49377	12.7033	20.2740	0.03370	0.53147	—	0.53147	0.48895	—	0.48895	—	3,648.88	3,648.88	0.14801	0.02960	—	3,661.40
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—

Onsite truck	0.00295	0.00159	0.04158	0.02496	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.0769	16.0769	0.00115	0.00256	0.02749	16.8952
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.77771	1.49377	12.7033	20.2740	0.03370	0.53147	—	0.53147	0.48895	—	0.48895	—	3,648.88	3,648.88	0.14801	0.02960	—	3,661.40
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00273	0.00137	0.04405	0.02566	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.1517	16.1517	0.00115	0.00260	0.00071	16.9563
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26632	1.06406	9.04893	14.4417	0.02400	0.37858	—	0.37858	0.34830	—	0.34830	—	2,599.20	2,599.20	0.10543	0.02109	—	2,608.12
Dust From Material Movement	—	—	—	—	—	—	0.29462	0.29462	—	0.03181	0.03181	—	—	—	—	—	—	—
Onsite truck	0.00204	0.00107	0.03059	0.01800	0.00009	0.00019	0.73094	0.73113	0.00019	0.07311	0.07330	—	11.4744	11.4744	0.00082	0.00185	0.00845	12.0555
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23110	0.19419	1.65143	2.63562	0.00438	0.06909	—	0.06909	0.06356	—	0.06356	—	430.327	430.327	0.01746	0.00349	—	431.804
Dust From Material Movement	—	—	—	—	—	—	0.05377	0.05377	—	0.00581	0.00581	—	—	—	—	—	—	—
Onsite truck	0.00037	0.00019	0.00558	0.00328	0.00002	0.00003	0.13340	0.13343	0.00003	0.01334	0.01338	—	1.89972	1.89972	0.00014	0.00031	0.00140	1.99593

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21109	0.18739	0.17251	2.90239	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	661.064	661.064	0.00772	0.02370	1.98008	670.299
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.07716	0.02381	1.55073	0.48766	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,303.04	1,303.04	0.04321	0.20812	2.74908	1,368.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18409	0.17968	0.19731	2.32588	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	613.276	613.276	0.00882	0.02370	0.05132	620.611
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.07496	0.02161	1.63892	0.49472	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,303.79	1,303.79	0.04321	0.20856	0.07125	1,367.09
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12956	0.12642	0.13898	1.72707	0.00000	0.00000	0.43182	0.43182	0.00000	0.10069	0.10069	—	444.073	444.073	0.00628	0.01688	0.60864	449.870
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05434	0.01633	1.15394	0.34957	0.00660	0.01884	0.24955	0.26839	0.01884	0.06867	0.08751	—	928.418	928.418	0.03078	0.14856	0.84528	974.304
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02364	0.02307	0.02536	0.31519	0.00000	0.00000	0.07881	0.07881	0.00000	0.01838	0.01838	—	73.5214	73.5214	0.00104	0.00280	0.10077	74.4811
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00992	0.00298	0.21059	0.06380	0.00120	0.00344	0.04554	0.04898	0.00344	0.01253	0.01597	—	153.710	153.710	0.00510	0.02460	0.13995	161.307

3.144. Grading (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.77771	1.49377	12.7033	20.2740	0.03370	0.53147	—	0.53147	0.48895	—	0.48895	—	3,648.88	3,648.88	0.14801	0.02960	—	3,661.40
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00295	0.00159	0.04158	0.02496	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.0769	16.0769	0.00115	0.00256	0.02749	16.8952
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.77771	1.49377	12.7033	20.2740	0.03370	0.53147	—	0.53147	0.48895	—	0.48895	—	3,648.88	3,648.88	0.14801	0.02960	—	3,661.40
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00273	0.00137	0.04405	0.02566	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	16.1517	16.1517	0.00115	0.00260	0.00071	16.9563
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26632	1.06406	9.04893	14.4417	0.02400	0.37858	—	0.37858	0.34830	—	0.34830	—	2,599.20	2,599.20	0.10543	0.02109	—	2,608.12
Dust From Material Movement	—	—	—	—	—	—	0.29462	0.29462	—	0.03181	0.03181	—	—	—	—	—	—	—
Onsite truck	0.00204	0.00107	0.03059	0.01800	0.00009	0.00019	0.73094	0.73113	0.00019	0.07311	0.07330	—	11.4744	11.4744	0.00082	0.00185	0.00845	12.0555
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23110	0.19419	1.65143	2.63562	0.00438	0.06909	—	0.06909	0.06356	—	0.06356	—	430.327	430.327	0.01746	0.00349	—	431.804

Dust From Material Movement	—	—	—	—	—	—	0.05377	0.05377	—	0.00581	0.00581	—	—	—	—	—	—	—
Onsite truck	0.00037	0.00019	0.00558	0.00328	0.00002	0.00003	0.13340	0.13343	0.00003	0.01334	0.01338	—	1.89972	1.89972	0.00014	0.00031	0.00140	1.99593
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21109	0.18739	0.17251	2.90239	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	661.064	661.064	0.00772	0.02370	1.98008	670.299
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.07716	0.02381	1.55073	0.48766	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,303.04	1,303.04	0.04321	0.20812	2.74908	1,368.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18409	0.17968	0.19731	2.32588	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	613.276	613.276	0.00882	0.02370	0.05132	620.611
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.07496	0.02161	1.63892	0.49472	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,303.79	1,303.79	0.04321	0.20856	0.07125	1,367.09
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12956	0.12642	0.13898	1.72707	0.00000	0.00000	0.43182	0.43182	0.00000	0.10069	0.10069	—	444.073	444.073	0.00628	0.01688	0.60864	449.870
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05434	0.01633	1.15394	0.34957	0.00660	0.01884	0.24955	0.26839	0.01884	0.06867	0.08751	—	928.418	928.418	0.03078	0.14856	0.84528	974.304
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02364	0.02307	0.02536	0.31519	0.00000	0.00000	0.07881	0.07881	0.00000	0.01838	0.01838	—	73.5214	73.5214	0.00104	0.00280	0.10077	74.4811
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00992	0.00298	0.21059	0.06380	0.00120	0.00344	0.04554	0.04898	0.00344	0.01253	0.01597	—	153.710	153.710	0.00510	0.02460	0.13995	161.307

3.145. Grading (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.71575	1.44170	11.9908	20.2515	0.03370	0.48346	—	0.48346	0.44478	—	0.44478	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00287	0.00159	0.04079	0.02491	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.6952	15.6952	0.00115	0.00247	0.02522	16.4849
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.71575	1.44170	11.9908	20.2515	0.03370	0.48346	—	0.48346	0.44478	—	0.44478	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00137	0.04317	0.02562	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.7706	15.7706	0.00115	0.00251	0.00065	16.5489
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22553	1.02979	8.56484	14.4654	0.02407	0.34533	—	0.34533	0.31770	—	0.31770	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—

Onsite truck	0.00198	0.00107	0.03011	0.01801	0.00009	0.00019	0.73295	0.73314	0.00019	0.07332	0.07350	—	11.2335	11.2335	0.00082	0.00176	0.00777	11.7873
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22366	0.18794	1.56308	2.63993	0.00439	0.06302	—	0.06302	0.05798	—	0.05798	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00549	0.00329	0.00002	0.00003	0.13376	0.13380	0.00003	0.01338	0.01341	—	1.85983	1.85983	0.00014	0.00029	0.00129	1.95152
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18188	0.17968	0.15102	2.71940	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	649.520	649.520	0.00661	0.02370	1.77303	658.521
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06834	0.02381	1.50311	0.47928	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,269.41	1,269.41	0.04321	0.19930	2.52209	1,332.40
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17527	0.15157	0.17472	2.17596	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	602.617	602.617	0.00882	0.02370	0.04608	609.946
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06614	0.02161	1.58248	0.48634	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,270.15	1,270.15	0.04321	0.19974	0.06532	1,330.82
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12519	0.12283	0.12401	1.62630	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	437.551	437.551	0.00551	0.01693	0.54782	443.282
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04819	0.01638	1.12310	0.34455	0.00661	0.01890	0.25023	0.26913	0.01890	0.06886	0.08775	—	906.940	906.940	0.03086	0.14236	0.77734	950.911
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02285	0.02242	0.02263	0.29680	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	72.4416	72.4416	0.00091	0.00280	0.09070	73.3903

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00879	0.00299	0.20497	0.06288	0.00121	0.00345	0.04567	0.04912	0.00345	0.01257	0.01602	—	150.154	150.154	0.00511	0.02357	0.12870	157.434

3.146. Grading (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.71575	1.44170	11.9908	20.2515	0.03370	0.48346	—	0.48346	0.44478	—	0.44478	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00287	0.00159	0.04079	0.02491	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.6952	15.6952	0.00115	0.00247	0.02522	16.4849
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.71575	1.44170	11.9908	20.2515	0.03370	0.48346	—	0.48346	0.44478	—	0.44478	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00137	0.04317	0.02562	0.00013	0.00026	1.48461	1.48487	0.00026	0.14839	0.14866	—	15.7706	15.7706	0.00115	0.00251	0.00065	16.5489
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.22553	1.02979	8.56484	14.4654	0.02407	0.34533	—	0.34533	0.31770	—	0.31770	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00198	0.00107	0.03011	0.01801	0.00009	0.00019	0.73295	0.73314	0.00019	0.07332	0.07350	—	11.2335	11.2335	0.00082	0.00176	0.00777	11.7873
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22366	0.18794	1.56308	2.63993	0.00439	0.06302	—	0.06302	0.05798	—	0.05798	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00549	0.00329	0.00002	0.00003	0.13376	0.13380	0.00003	0.01338	0.01341	—	1.85983	1.85983	0.00014	0.00029	0.00129	1.95152
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18188	0.17968	0.15102	2.71940	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	649.520	649.520	0.00661	0.02370	1.77303	658.521
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06834	0.02381	1.50311	0.47928	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,269.41	1,269.41	0.04321	0.19930	2.52209	1,332.40
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17527	0.15157	0.17472	2.17596	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	602.617	602.617	0.00882	0.02370	0.04608	609.946
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06614	0.02161	1.58248	0.48634	0.00926	0.02646	0.37080	0.39726	0.02646	0.10152	0.12797	—	1,270.15	1,270.15	0.04321	0.19974	0.06532	1,330.82
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12519	0.12283	0.12401	1.62630	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	437.551	437.551	0.00551	0.01693	0.54782	443.282

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04819	0.01638	1.12310	0.34455	0.00661	0.01890	0.25023	0.26913	0.01890	0.06886	0.08775	—	906.940	906.940	0.03086	0.14236	0.77734	950.911
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02285	0.02242	0.02263	0.29680	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	72.4416	72.4416	0.00091	0.00280	0.09070	73.3903
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00879	0.00299	0.20497	0.06288	0.00121	0.00345	0.04567	0.04912	0.00345	0.01257	0.01602	—	150.154	150.154	0.00511	0.02357	0.12870	157.434

3.147. Grading (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65029	1.38671	11.4782	20.1911	0.03370	0.45315	—	0.45315	0.41690	—	0.41690	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.04004	0.02487	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3214	15.3214	0.00106	0.00247	0.02295	16.1066
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65029	1.38671	11.4782	20.1911	0.03370	0.45315	—	0.45315	0.41690	—	0.41690	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52

Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04246	0.02557	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3976	15.3976	0.00101	0.00247	0.00060	16.1593
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17878	0.99050	8.19873	14.4222	0.02407	0.32368	—	0.32368	0.29778	—	0.29778	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02957	0.01798	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.9667	10.9667	0.00072	0.00176	0.00708	11.5175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21513	0.18077	1.49627	2.63206	0.00439	0.05907	—	0.05907	0.05435	—	0.05435	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00540	0.00328	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.81566	1.81566	0.00012	0.00029	0.00117	1.90685
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17417	0.15157	0.12842	2.55681	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	638.638	638.638	0.00661	0.02370	1.58056	647.447
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06790	0.02381	1.45593	0.47091	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,236.09	1,236.09	0.03439	0.19930	2.29510	1,298.63

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16865	0.14495	0.15322	2.04754	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	592.556	592.556	0.00772	0.02370	0.04112	599.852
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06570	0.02161	1.53574	0.47796	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,236.85	1,236.85	0.03395	0.19930	0.05952	1,297.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11968	0.10275	0.10866	1.52158	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	430.253	430.253	0.00551	0.01693	0.48742	435.923
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04787	0.01638	1.08940	0.33857	0.00661	0.01890	0.25023	0.26913	0.01260	0.06886	0.08146	—	883.149	883.149	0.02425	0.14236	0.70799	926.886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02184	0.01875	0.01983	0.27769	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	71.2333	71.2333	0.00091	0.00280	0.08070	72.1720
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00874	0.00299	0.19882	0.06179	0.00121	0.00345	0.04567	0.04912	0.00230	0.01257	0.01487	—	146.215	146.215	0.00402	0.02357	0.11722	153.457

3.148. Grading (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65029	1.38671	11.4782	20.1911	0.03370	0.45315	—	0.45315	0.41690	—	0.41690	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—

Onsite truck	0.00282	0.00159	0.04004	0.02487	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3214	15.3214	0.00106	0.00247	0.02295	16.1066
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65029	1.38671	11.4782	20.1911	0.03370	0.45315	—	0.45315	0.41690	—	0.41690	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04246	0.02557	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.3976	15.3976	0.00101	0.00247	0.00060	16.1593
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17878	0.99050	8.19873	14.4222	0.02407	0.32368	—	0.32368	0.29778	—	0.29778	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02957	0.01798	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.9667	10.9667	0.00072	0.00176	0.00708	11.5175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21513	0.18077	1.49627	2.63206	0.00439	0.05907	—	0.05907	0.05435	—	0.05435	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00540	0.00328	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.81566	1.81566	0.00012	0.00029	0.00117	1.90685

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17417	0.15157	0.12842	2.55681	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	638.638	638.638	0.00661	0.02370	1.58056	647.447
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06790	0.02381	1.45593	0.47091	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,236.09	1,236.09	0.03439	0.19930	2.29510	1,298.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16865	0.14495	0.15322	2.04754	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	592.556	592.556	0.00772	0.02370	0.04112	599.852
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06570	0.02161	1.53574	0.47796	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,236.85	1,236.85	0.03395	0.19930	0.05952	1,297.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11968	0.10275	0.10866	1.52158	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	430.253	430.253	0.00551	0.01693	0.48742	435.923
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04787	0.01638	1.08940	0.33857	0.00661	0.01890	0.25023	0.26913	0.01260	0.06886	0.08146	—	883.149	883.149	0.02425	0.14236	0.70799	926.886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02184	0.01875	0.01983	0.27769	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	71.2333	71.2333	0.00091	0.00280	0.08070	72.1720
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00874	0.00299	0.19882	0.06179	0.00121	0.00345	0.04567	0.04912	0.00230	0.01257	0.01487	—	146.215	146.215	0.00402	0.02357	0.11722	153.457

3.149. Grading (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.60657	1.34997	11.0267	20.1472	0.03370	0.43198	—	0.43198	0.39742	—	0.39742	—	3,649.00	3,649.00	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.03937	0.02478	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.9587	14.9587	0.00101	0.00238	0.02081	15.7144
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.60657	1.34997	11.0267	20.1472	0.03370	0.43198	—	0.43198	0.39742	—	0.39742	—	3,649.00	3,649.00	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04180	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.0357	15.0357	0.00101	0.00238	0.00054	15.7711
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.14755	0.96426	7.87620	14.3909	0.02407	0.30856	—	0.30856	0.28387	—	0.28387	—	2,606.43	2,606.43	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00195	0.00107	0.02913	0.01789	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.7079	10.7079	0.00072	0.00170	0.00640	11.2392
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20943	0.17598	1.43741	2.62633	0.00439	0.05631	—	0.05631	0.05181	—	0.05181	—	431.524	431.524	0.01750	0.00350	—	433.005

Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00532	0.00326	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.77281	1.77281	0.00012	0.00028	0.00106	1.86078
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16755	0.14495	0.12732	2.39532	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	628.580	628.580	0.00661	0.00331	1.40268	631.133
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06790	0.02381	1.41757	0.45415	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,203.41	1,203.41	0.03395	0.19048	2.08072	1,263.11
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16204	0.13834	0.15212	1.91912	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	583.260	583.260	0.00772	0.02370	0.03645	590.552
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06570	0.02161	1.49738	0.46077	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,204.18	1,204.18	0.03395	0.19048	0.05385	1,261.85
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11496	0.09803	0.10708	1.43222	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	423.500	423.500	0.00472	0.01693	0.43326	429.096
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04787	0.01638	1.06231	0.32628	0.00661	0.01890	0.25023	0.26913	0.01260	0.06886	0.08146	—	859.813	859.813	0.02425	0.13606	0.64043	901.604
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02098	0.01789	0.01954	0.26138	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	70.1152	70.1152	0.00078	0.00280	0.07173	71.0417
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00874	0.00299	0.19387	0.05955	0.00121	0.00345	0.04567	0.04912	0.00230	0.01257	0.01487	—	142.352	142.352	0.00402	0.02253	0.10603	149.271

3.150. Grading (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.60657	1.34997	11.0267	20.1472	0.03370	0.43198	—	0.43198	0.39742	—	0.39742	—	3,649.00	3,649.00	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00282	0.00159	0.03937	0.02478	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.9587	14.9587	0.00101	0.00238	0.02081	15.7144
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.60657	1.34997	11.0267	20.1472	0.03370	0.43198	—	0.43198	0.39742	—	0.39742	—	3,649.00	3,649.00	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00137	0.04180	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	15.0357	15.0357	0.00101	0.00238	0.00054	15.7711
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.14755	0.96426	7.87620	14.3909	0.02407	0.30856	—	0.30856	0.28387	—	0.28387	—	2,606.43	2,606.43	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—

Onsite truck	0.00195	0.00107	0.02913	0.01789	0.00009	0.00019	0.73295	0.73314	0.00013	0.07332	0.07344	—	10.7079	10.7079	0.00072	0.00170	0.00640	11.2392
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20943	0.17598	1.43741	2.62633	0.00439	0.05631	—	0.05631	0.05181	—	0.05181	—	431.524	431.524	0.01750	0.00350	—	433.005
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00036	0.00020	0.00532	0.00326	0.00002	0.00003	0.13376	0.13380	0.00002	0.01338	0.01340	—	1.77281	1.77281	0.00012	0.00028	0.00106	1.86078
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16755	0.14495	0.12732	2.39532	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	628.580	628.580	0.00661	0.00331	1.40268	631.133
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06790	0.02381	1.41757	0.45415	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,203.41	1,203.41	0.03395	0.19048	2.08072	1,263.11
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16204	0.13834	0.15212	1.91912	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	583.260	583.260	0.00772	0.02370	0.03645	590.552
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.06570	0.02161	1.49738	0.46077	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,204.18	1,204.18	0.03395	0.19048	0.05385	1,261.85
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11496	0.09803	0.10708	1.43222	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	423.500	423.500	0.00472	0.01693	0.43326	429.096
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04787	0.01638	1.06231	0.32628	0.00661	0.01890	0.25023	0.26913	0.01260	0.06886	0.08146	—	859.813	859.813	0.02425	0.13606	0.64043	901.604
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02098	0.01789	0.01954	0.26138	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	70.1152	70.1152	0.00078	0.00280	0.07173	71.0417

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00874	0.00299	0.19387	0.05955	0.00121	0.00345	0.04567	0.04912	0.00230	0.01257	0.01487	—	142.352	142.352	0.00402	0.02253	0.10603	149.271

3.151. Grading (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56173	1.31228	10.6027	20.1028	0.03370	0.40754	—	0.40754	0.37493	—	0.37493	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03880	0.02474	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6170	14.6170	0.00101	0.00238	0.01866	15.3705
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56173	1.31228	10.6027	20.1028	0.03370	0.40754	—	0.40754	0.37493	—	0.37493	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04123	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6947	14.6947	0.00097	0.00238	0.00048	15.4290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.11857	0.93991	7.59411	14.3985	0.02414	0.29190	—	0.29190	0.26854	—	0.26854	—	2,613.56	2,613.56	0.10602	0.02120	—	2,622.53
Dust From Material Movement	—	—	—	—	—	—	0.29623	0.29623	—	0.03199	0.03199	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02871	0.01794	0.00009	0.00019	0.73496	0.73515	0.00013	0.07352	0.07364	—	10.4927	10.4927	0.00073	0.00171	0.00576	11.0248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20414	0.17153	1.38592	2.62772	0.00441	0.05327	—	0.05327	0.04901	—	0.04901	—	432.705	432.705	0.01755	0.00351	—	434.190
Dust From Material Movement	—	—	—	—	—	—	0.05406	0.05406	—	0.00584	0.00584	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00524	0.00327	0.00002	0.00003	0.13413	0.13416	0.00002	0.01342	0.01344	—	1.73718	1.73718	0.00012	0.00028	0.00095	1.82528
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15984	0.13724	0.10582	2.25643	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	619.471	619.471	0.00551	0.00331	1.23645	621.831
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05864	0.02381	1.38009	0.44577	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,172.39	1,172.39	0.03395	0.19048	1.86635	1,231.86
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15543	0.13173	0.12952	1.81551	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	574.833	574.833	0.00661	0.02370	0.03208	582.093
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05644	0.02161	1.45990	0.45283	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,173.16	1,173.16	0.03351	0.19048	0.04830	1,230.81
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11132	0.09435	0.09198	1.34890	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	418.525	418.525	0.00474	0.00237	0.38223	419.732

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04137	0.01642	1.03175	0.32149	0.00663	0.01895	0.25092	0.26987	0.01263	0.06905	0.08168	—	839.946	839.946	0.02432	0.13643	0.57625	881.786
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02032	0.01722	0.01679	0.24617	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	69.2916	69.2916	0.00078	0.00039	0.06328	69.4913
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00755	0.00300	0.18829	0.05867	0.00121	0.00346	0.04579	0.04925	0.00231	0.01260	0.01491	—	139.063	139.063	0.00403	0.02259	0.09540	145.990

3.152. Grading (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56173	1.31228	10.6027	20.1028	0.03370	0.40754	—	0.40754	0.37493	—	0.37493	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03880	0.02474	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6170	14.6170	0.00101	0.00238	0.01866	15.3705
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56173	1.31228	10.6027	20.1028	0.03370	0.40754	—	0.40754	0.37493	—	0.37493	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52

Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04123	0.02544	0.00013	0.00026	1.48461	1.48487	0.00018	0.14839	0.14857	—	14.6947	14.6947	0.00097	0.00238	0.00048	15.4290
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11857	0.93991	7.59411	14.3985	0.02414	0.29190	—	0.29190	0.26854	—	0.26854	—	2,613.56	2,613.56	0.10602	0.02120	—	2,622.53
Dust From Material Movement	—	—	—	—	—	—	0.29623	0.29623	—	0.03199	0.03199	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02871	0.01794	0.00009	0.00019	0.73496	0.73515	0.00013	0.07352	0.07364	—	10.4927	10.4927	0.00073	0.00171	0.00576	11.0248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20414	0.17153	1.38592	2.62772	0.00441	0.05327	—	0.05327	0.04901	—	0.04901	—	432.705	432.705	0.01755	0.00351	—	434.190
Dust From Material Movement	—	—	—	—	—	—	0.05406	0.05406	—	0.00584	0.00584	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00524	0.00327	0.00002	0.00003	0.13413	0.13416	0.00002	0.01342	0.01344	—	1.73718	1.73718	0.00012	0.00028	0.00095	1.82528
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15984	0.13724	0.10582	2.25643	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	619.471	619.471	0.00551	0.00331	1.23645	621.831
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05864	0.02381	1.38009	0.44577	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,172.39	1,172.39	0.03395	0.19048	1.86635	1,231.86

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15543	0.13173	0.12952	1.81551	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	574.833	574.833	0.00661	0.02370	0.03208	582.093
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05644	0.02161	1.45990	0.45283	0.00926	0.02646	0.37080	0.39726	0.01764	0.10152	0.11916	—	1,173.16	1,173.16	0.03351	0.19048	0.04830	1,230.81
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11132	0.09435	0.09198	1.34890	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	418.525	418.525	0.00474	0.00237	0.38223	419.732
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04137	0.01642	1.03175	0.32149	0.00663	0.01895	0.25092	0.26987	0.01263	0.06905	0.08168	—	839.946	839.946	0.02432	0.13643	0.57625	881.786
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02032	0.01722	0.01679	0.24617	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	69.2916	69.2916	0.00078	0.00039	0.06328	69.4913
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00755	0.00300	0.18829	0.05867	0.00121	0.00346	0.04579	0.04925	0.00231	0.01260	0.01491	—	139.063	139.063	0.00403	0.02259	0.09540	145.990

3.153. Grading (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.52211	1.27899	10.2597	20.0626	0.03371	0.37740	—	0.37740	0.34721	—	0.34721	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—

Onsite truck	0.00269	0.00159	0.03818	0.02474	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3080	14.3080	0.00097	0.00229	0.01639	15.0319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.52211	1.27899	10.2597	20.0626	0.03371	0.37740	—	0.37740	0.34721	—	0.34721	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04061	0.02540	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3865	14.3865	0.00097	0.00229	0.00043	15.0945
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08722	0.91357	7.32833	14.3305	0.02408	0.26957	—	0.26957	0.24801	—	0.24801	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02819	0.01789	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.2436	10.2436	0.00069	0.00164	0.00507	10.7540
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19842	0.16673	1.33742	2.61531	0.00439	0.04920	—	0.04920	0.04526	—	0.04526	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00514	0.00326	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.69594	1.69594	0.00011	0.00027	0.00084	1.78045

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13393	0.13173	0.10472	2.14014	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	611.332	611.332	0.00551	0.00331	1.08773	613.543
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05864	0.02381	1.34217	0.43784	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,144.23	1,144.23	0.03351	0.18166	1.63936	1,200.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13062	0.12732	0.12842	1.71299	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.275	567.275	0.00661	0.00331	0.02817	568.454
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05644	0.02161	1.42198	0.44445	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,145.02	1,145.02	0.03351	0.18166	0.04262	1,200.03
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09173	0.09015	0.07637	1.27356	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	411.899	411.899	0.00472	0.00236	0.33536	413.056
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04126	0.01638	1.00184	0.31495	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	817.544	817.544	0.02394	0.12976	0.50712	857.317
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01674	0.01645	0.01394	0.23243	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	68.1946	68.1946	0.00078	0.00039	0.05552	68.3862
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00753	0.00299	0.18284	0.05748	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	135.354	135.354	0.00396	0.02148	0.08396	141.939

3.154. Grading (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.52211	1.27899	10.2597	20.0626	0.03371	0.37740	—	0.37740	0.34721	—	0.34721	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03818	0.02474	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3080	14.3080	0.00097	0.00229	0.01639	15.0319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.52211	1.27899	10.2597	20.0626	0.03371	0.37740	—	0.37740	0.34721	—	0.34721	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00137	0.04061	0.02540	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.3865	14.3865	0.00097	0.00229	0.00043	15.0945
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08722	0.91357	7.32833	14.3305	0.02408	0.26957	—	0.26957	0.24801	—	0.24801	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02819	0.01789	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.2436	10.2436	0.00069	0.00164	0.00507	10.7540
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19842	0.16673	1.33742	2.61531	0.00439	0.04920	—	0.04920	0.04526	—	0.04526	—	431.523	431.523	0.01750	0.00350	—	433.004

Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00514	0.00326	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.69594	1.69594	0.00011	0.00027	0.00084	1.78045
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13393	0.13173	0.10472	2.14014	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	611.332	611.332	0.00551	0.00331	1.08773	613.543
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05864	0.02381	1.34217	0.43784	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,144.23	1,144.23	0.03351	0.18166	1.63936	1,200.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13062	0.12732	0.12842	1.71299	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.275	567.275	0.00661	0.00331	0.02817	568.454
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05644	0.02161	1.42198	0.44445	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,145.02	1,145.02	0.03351	0.18166	0.04262	1,200.03
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09173	0.09015	0.07637	1.27356	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	411.899	411.899	0.00472	0.00236	0.33536	413.056
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04126	0.01638	1.00184	0.31495	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	817.544	817.544	0.02394	0.12976	0.50712	857.317
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01674	0.01645	0.01394	0.23243	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	68.1946	68.1946	0.00078	0.00039	0.05552	68.3862
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00753	0.00299	0.18284	0.05748	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	135.354	135.354	0.00396	0.02148	0.08396	141.939

3.155. Grading (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.48124	1.24465	9.94455	20.0309	0.03371	0.35060	—	0.35060	0.32255	—	0.32255	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03774	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.0326	14.0326	0.00097	0.00229	0.01438	14.7544
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.48124	1.24465	9.94455	20.0309	0.03371	0.35060	—	0.35060	0.32255	—	0.32255	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00141	0.04012	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.1119	14.1119	0.00093	0.00229	0.00037	14.8187
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05803	0.88904	7.10325	14.3078	0.02408	0.25043	—	0.25043	0.23039	—	0.23039	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—

Onsite truck	0.00186	0.00107	0.02790	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.0471	10.0471	0.00069	0.00164	0.00442	10.5568
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19309	0.16225	1.29634	2.61117	0.00439	0.04570	—	0.04570	0.04205	—	0.04205	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00509	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.66341	1.66341	0.00011	0.00027	0.00073	1.74781
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12732	0.12511	0.08322	2.02384	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	603.772	603.772	0.00551	0.00331	0.94775	605.843
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05864	0.02381	1.31396	0.42108	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,119.03	1,119.03	0.03351	0.18166	1.43759	1,175.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12401	0.12070	0.10692	1.61158	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	560.256	560.256	0.00661	0.00331	0.02455	561.431
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05644	0.02205	1.38538	0.42770	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,119.83	1,119.83	0.03307	0.18166	0.03720	1,174.83
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08858	0.08700	0.07559	1.20270	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	406.815	406.815	0.00394	0.00236	0.29162	407.909
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04126	0.01638	0.98200	0.30266	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	799.547	799.547	0.02394	0.12976	0.44227	839.256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01617	0.01588	0.01379	0.21949	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	67.3528	67.3528	0.00065	0.00039	0.04828	67.5339

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00753	0.00299	0.17922	0.05524	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	132.374	132.374	0.00396	0.02148	0.07322	138.948

3.156. Grading (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.48124	1.24465	9.94455	20.0309	0.03371	0.35060	—	0.35060	0.32255	—	0.32255	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03774	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.0326	14.0326	0.00097	0.00229	0.01438	14.7544
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.48124	1.24465	9.94455	20.0309	0.03371	0.35060	—	0.35060	0.32255	—	0.32255	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00247	0.00141	0.04012	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	14.1119	14.1119	0.00093	0.00229	0.00037	14.8187
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.05803	0.88904	7.10325	14.3078	0.02408	0.25043	—	0.25043	0.23039	—	0.23039	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00186	0.00107	0.02790	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	10.0471	10.0471	0.00069	0.00164	0.00442	10.5568
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19309	0.16225	1.29634	2.61117	0.00439	0.04570	—	0.04570	0.04205	—	0.04205	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00034	0.00020	0.00509	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.66341	1.66341	0.00011	0.00027	0.00073	1.74781
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12732	0.12511	0.08322	2.02384	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	603.772	603.772	0.00551	0.00331	0.94775	605.843
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05864	0.02381	1.31396	0.42108	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,119.03	1,119.03	0.03351	0.18166	1.43759	1,175.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12401	0.12070	0.10692	1.61158	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	560.256	560.256	0.00661	0.00331	0.02455	561.431
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05644	0.02205	1.38538	0.42770	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,119.83	1,119.83	0.03307	0.18166	0.03720	1,174.83
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08858	0.08700	0.07559	1.20270	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	406.815	406.815	0.00394	0.00236	0.29162	407.909

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04126	0.01638	0.98200	0.30266	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	799.547	799.547	0.02394	0.12976	0.44227	839.256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01617	0.01588	0.01379	0.21949	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	67.3528	67.3528	0.00065	0.00039	0.04828	67.5339
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00753	0.00299	0.17922	0.05524	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	132.374	132.374	0.00396	0.02148	0.07322	138.948

3.157. Grading (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44496	1.21417	9.70012	20.0010	0.03371	0.32354	—	0.32354	0.29766	—	0.29766	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00269	0.00159	0.03730	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.7908	13.7908	0.00084	0.00220	0.01241	14.4811
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44496	1.21417	9.70012	20.0010	0.03371	0.32354	—	0.32354	0.29766	—	0.29766	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52

Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00141	0.03973	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.8709	13.8709	0.00084	0.00220	0.00032	14.5492
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03211	0.86726	6.92866	14.2864	0.02408	0.23110	—	0.23110	0.21261	—	0.21261	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00107	0.02759	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.87460	9.87460	0.00060	0.00157	0.00383	10.3627
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18836	0.15828	1.26448	2.60727	0.00439	0.04218	—	0.04218	0.03880	—	0.03880	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00020	0.00504	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.63485	1.63485	0.00010	0.00026	0.00063	1.71566
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12511	0.12291	0.08322	1.93015	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	597.020	597.020	0.00441	0.00331	0.82236	598.938
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05864	0.02381	1.28574	0.41315	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,096.83	1,096.83	0.02425	0.17284	1.24087	1,150.18

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11850	0.10692	1.53387	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	553.984	553.984	0.00551	0.00331	0.02129	555.128
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05600	0.02205	1.35761	0.41976	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,097.63	1,097.63	0.02425	0.17284	0.03216	1,149.78
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08700	0.08543	0.07480	1.14877	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	402.264	402.264	0.00394	0.00236	0.25412	403.321
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04094	0.01638	0.96185	0.29699	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	783.689	783.689	0.01732	0.12346	0.38282	821.296
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01588	0.01559	0.01365	0.20965	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	66.5994	66.5994	0.00065	0.00039	0.04207	66.7743
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00747	0.00299	0.17554	0.05420	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	129.749	129.749	0.00287	0.02044	0.06338	135.975

3.158. Grading (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44496	1.21417	9.70012	20.0010	0.03371	0.32354	—	0.32354	0.29766	—	0.29766	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—

Onsite truck	0.00269	0.00159	0.03730	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.7908	13.7908	0.00084	0.00220	0.01241	14.4811
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44496	1.21417	9.70012	20.0010	0.03371	0.32354	—	0.32354	0.29766	—	0.29766	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00141	0.03973	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.8709	13.8709	0.00084	0.00220	0.00032	14.5492
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03211	0.86726	6.92866	14.2864	0.02408	0.23110	—	0.23110	0.21261	—	0.21261	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00107	0.02759	0.01779	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.87460	9.87460	0.00060	0.00157	0.00383	10.3627
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18836	0.15828	1.26448	2.60727	0.00439	0.04218	—	0.04218	0.03880	—	0.03880	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00020	0.00504	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.63485	1.63485	0.00010	0.00026	0.00063	1.71566

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12511	0.12291	0.08322	1.93015	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	597.020	597.020	0.00441	0.00331	0.82236	598.938
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05864	0.02381	1.28574	0.41315	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,096.83	1,096.83	0.02425	0.17284	1.24087	1,150.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11850	0.10692	1.53387	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	553.984	553.984	0.00551	0.00331	0.02129	555.128
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05600	0.02205	1.35761	0.41976	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,097.63	1,097.63	0.02425	0.17284	0.03216	1,149.78
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08700	0.08543	0.07480	1.14877	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	402.264	402.264	0.00394	0.00236	0.25412	403.321
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04094	0.01638	0.96185	0.29699	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	783.689	783.689	0.01732	0.12346	0.38282	821.296
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01588	0.01559	0.01365	0.20965	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	66.5994	66.5994	0.00065	0.00039	0.04207	66.7743
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00747	0.00299	0.17554	0.05420	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	129.749	129.749	0.00287	0.02044	0.06338	135.975

3.159. Grading (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.40822	1.18330	9.36135	19.9673	0.03371	0.29754	—	0.29754	0.27374	—	0.27374	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00159	0.03686	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.5769	13.5769	0.00084	0.00216	0.01068	14.2524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40822	1.18330	9.36135	19.9673	0.03371	0.29754	—	0.29754	0.27374	—	0.27374	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03937	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.6578	13.6578	0.00084	0.00220	0.00028	14.3360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00863	0.84753	6.70500	14.3014	0.02414	0.21311	—	0.21311	0.19606	—	0.19606	—	2,613.56	2,613.56	0.10602	0.02120	—	2,622.53
Dust From Material Movement	—	—	—	—	—	—	0.29623	0.29623	—	0.03199	0.03199	—	—	—	—	—	—	—
Onsite truck	0.00177	0.00107	0.02735	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.74871	9.74871	0.00060	0.00158	0.00331	10.2376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18407	0.15467	1.22366	2.61001	0.00441	0.03889	—	0.03889	0.03578	—	0.03578	—	432.705	432.705	0.01755	0.00351	—	434.190

Dust From Material Movement	—	—	—	—	—	—	0.05406	0.05406	—	0.00584	0.00584	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00499	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.61401	1.61401	0.00010	0.00026	0.00055	1.69495
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11960	0.08212	1.83645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	591.029	591.029	0.00441	0.00331	0.70863	592.833
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02381	1.25752	0.40521	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,076.97	1,076.97	0.02425	0.17240	1.06810	1,130.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11850	0.11629	0.10582	1.45726	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	548.413	548.413	0.00551	0.00331	0.01837	549.554
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04718	0.02205	1.33821	0.41182	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,077.78	1,077.78	0.02425	0.17284	0.02774	1,129.92
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08487	0.08329	0.06040	1.09783	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	399.305	399.305	0.00395	0.00237	0.21931	400.329
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03474	0.01642	0.94427	0.29244	0.00663	0.01263	0.25092	0.26355	0.01263	0.06905	0.08168	—	771.614	771.614	0.01737	0.12380	0.33058	809.270
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01549	0.01520	0.01102	0.20035	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	66.1095	66.1095	0.00065	0.00039	0.03631	66.2791
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00634	0.00300	0.17233	0.05337	0.00121	0.00231	0.04579	0.04810	0.00231	0.01260	0.01491	—	127.749	127.749	0.00288	0.02050	0.05473	133.984

3.160. Grading (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40822	1.18330	9.36135	19.9673	0.03371	0.29754	—	0.29754	0.27374	—	0.27374	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00159	0.03686	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.5769	13.5769	0.00084	0.00216	0.01068	14.2524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40822	1.18330	9.36135	19.9673	0.03371	0.29754	—	0.29754	0.27374	—	0.27374	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03937	0.02531	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.6578	13.6578	0.00084	0.00220	0.00028	14.3360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00863	0.84753	6.70500	14.3014	0.02414	0.21311	—	0.21311	0.19606	—	0.19606	—	2,613.56	2,613.56	0.10602	0.02120	—	2,622.53
Dust From Material Movement	—	—	—	—	—	—	0.29623	0.29623	—	0.03199	0.03199	—	—	—	—	—	—	—

Onsite truck	0.00177	0.00107	0.02735	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.74871	9.74871	0.00060	0.00158	0.00331	10.2376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18407	0.15467	1.22366	2.61001	0.00441	0.03889	—	0.03889	0.03578	—	0.03578	—	432.705	432.705	0.01755	0.00351	—	434.190
Dust From Material Movement	—	—	—	—	—	—	0.05406	0.05406	—	0.00584	0.00584	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00499	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.61401	1.61401	0.00010	0.00026	0.00055	1.69495
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12181	0.11960	0.08212	1.83645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	591.029	591.029	0.00441	0.00331	0.70863	592.833
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02381	1.25752	0.40521	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,076.97	1,076.97	0.02425	0.17240	1.06810	1,130.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11850	0.11629	0.10582	1.45726	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	548.413	548.413	0.00551	0.00331	0.01837	549.554
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04718	0.02205	1.33821	0.41182	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,077.78	1,077.78	0.02425	0.17284	0.02774	1,129.92
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08487	0.08329	0.06040	1.09783	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	399.305	399.305	0.00395	0.00237	0.21931	400.329
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03474	0.01642	0.94427	0.29244	0.00663	0.01263	0.25092	0.26355	0.01263	0.06905	0.08168	—	771.614	771.614	0.01737	0.12380	0.33058	809.270
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01549	0.01520	0.01102	0.20035	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	66.1095	66.1095	0.00065	0.00039	0.03631	66.2791

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00634	0.00300	0.17233	0.05337	0.00121	0.00231	0.04579	0.04810	0.00231	0.01260	0.01491	—	127.749	127.749	0.00288	0.02050	0.05473	133.984

3.161. Grading (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.37322	1.15389	9.03614	19.8934	0.03371	0.27234	—	0.27234	0.25055	—	0.25055	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03655	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3968	13.3968	0.00079	0.00216	0.00917	14.0697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.37322	1.15389	9.03614	19.8934	0.03371	0.27234	—	0.27234	0.25055	—	0.25055	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03898	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.4784	13.4784	0.00079	0.00220	0.00024	14.1555
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.98087	0.82421	6.45438	14.2096	0.02408	0.19453	—	0.19453	0.17896	—	0.17896	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02705	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.59364	9.59364	0.00057	0.00157	0.00283	10.0799
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17901	0.15042	1.17793	2.59324	0.00439	0.03550	—	0.03550	0.03266	—	0.03266	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00494	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.58834	1.58834	0.00009	0.00026	0.00047	1.66884
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11740	0.11519	0.08212	1.76645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	585.661	585.661	0.00441	0.00331	0.60948	587.367
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02425	1.23856	0.39727	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,060.14	1,060.14	0.02381	0.17240	0.91678	1,113.03
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11409	0.11188	0.08433	1.40324	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	543.405	543.405	0.00551	0.00331	0.01578	544.544
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04718	0.02205	1.31043	0.40433	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,060.96	1,060.96	0.02381	0.17284	0.02383	1,113.08
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08149	0.07992	0.05945	1.04247	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	394.596	394.596	0.00394	0.00236	0.18768	395.586

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03464	0.01669	0.92815	0.28597	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	757.489	757.489	0.01701	0.12346	0.28283	794.988
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01487	0.01458	0.01085	0.19025	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	65.3298	65.3298	0.00065	0.00039	0.03107	65.4937
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00632	0.00305	0.16939	0.05219	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	125.411	125.411	0.00282	0.02044	0.04683	131.619

3.162. Grading (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.37322	1.15389	9.03614	19.8934	0.03371	0.27234	—	0.27234	0.25055	—	0.25055	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03655	0.02465	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3968	13.3968	0.00079	0.00216	0.00917	14.0697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.37322	1.15389	9.03614	19.8934	0.03371	0.27234	—	0.27234	0.25055	—	0.25055	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52

Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03898	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.4784	13.4784	0.00079	0.00220	0.00024	14.1555
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98087	0.82421	6.45438	14.2096	0.02408	0.19453	—	0.19453	0.17896	—	0.17896	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02705	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.59364	9.59364	0.00057	0.00157	0.00283	10.0799
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17901	0.15042	1.17793	2.59324	0.00439	0.03550	—	0.03550	0.03266	—	0.03266	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00494	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.58834	1.58834	0.00009	0.00026	0.00047	1.66884
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11740	0.11519	0.08212	1.76645	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	585.661	585.661	0.00441	0.00331	0.60948	587.367
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02425	1.23856	0.39727	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,060.14	1,060.14	0.02381	0.17240	0.91678	1,113.03

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11409	0.11188	0.08433	1.40324	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	543.405	543.405	0.00551	0.00331	0.01578	544.544
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04718	0.02205	1.31043	0.40433	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,060.96	1,060.96	0.02381	0.17284	0.02383	1,113.08
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08149	0.07992	0.05945	1.04247	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	394.596	394.596	0.00394	0.00236	0.18768	395.586
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03464	0.01669	0.92815	0.28597	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	757.489	757.489	0.01701	0.12346	0.28283	794.988
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01487	0.01458	0.01085	0.19025	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	65.3298	65.3298	0.00065	0.00039	0.03107	65.4937
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00632	0.00305	0.16939	0.05219	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	125.411	125.411	0.00282	0.02044	0.04683	131.619

3.163. Grading (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34425	1.12954	8.73396	19.8206	0.03371	0.25390	—	0.25390	0.23359	—	0.23359	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—

Onsite truck	0.00256	0.00163	0.03624	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.2398	13.2398	0.00079	0.00207	0.00787	13.8850
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34425	1.12954	8.73396	19.8206	0.03371	0.25390	—	0.25390	0.23359	—	0.23359	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03876	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3220	13.3220	0.00079	0.00212	0.00020	13.9728
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96018	0.80682	6.23855	14.1576	0.02408	0.18136	—	0.18136	0.16685	—	0.16685	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02686	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.48167	9.48167	0.00057	0.00148	0.00242	9.93938
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17523	0.14724	1.13853	2.58376	0.00439	0.03310	—	0.03310	0.03045	—	0.03045	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00490	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.56980	1.56980	0.00009	0.00025	0.00040	1.64558

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10968	0.08102	1.69646	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	580.914	580.914	0.00441	0.00331	0.52199	582.532
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02425	1.21960	0.38978	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,045.34	1,045.34	0.02381	0.16358	0.78689	1,095.47
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10858	0.08433	1.35143	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	538.979	538.979	0.00551	0.00331	0.01350	540.116
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04718	0.02205	1.29235	0.39639	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,046.16	1,046.16	0.02381	0.16402	0.02043	1,095.66
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07834	0.07756	0.05945	1.00625	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	391.392	391.392	0.00315	0.00236	0.16081	392.335
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03464	0.01669	0.91492	0.28030	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	746.920	746.920	0.01701	0.11684	0.24230	782.407
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01430	0.01415	0.01085	0.18364	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.7994	64.7994	0.00052	0.00039	0.02662	64.9556
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00632	0.00305	0.16697	0.05116	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	123.661	123.661	0.00282	0.01935	0.04012	129.536

3.164. Grading (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.34425	1.12954	8.73396	19.8206	0.03371	0.25390	—	0.25390	0.23359	—	0.23359	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03624	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.2398	13.2398	0.00079	0.00207	0.00787	13.8850
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.34425	1.12954	8.73396	19.8206	0.03371	0.25390	—	0.25390	0.23359	—	0.23359	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00234	0.00141	0.03876	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.3220	13.3220	0.00079	0.00212	0.00020	13.9728
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96018	0.80682	6.23855	14.1576	0.02408	0.18136	—	0.18136	0.16685	—	0.16685	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00176	0.00110	0.02686	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.48167	9.48167	0.00057	0.00148	0.00242	9.93938
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17523	0.14724	1.13853	2.58376	0.00439	0.03310	—	0.03310	0.03045	—	0.03045	—	431.523	431.523	0.01750	0.00350	—	433.004

Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00490	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.56980	1.56980	0.00009	0.00025	0.00040	1.64558
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10968	0.08102	1.69646	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	580.914	580.914	0.00441	0.00331	0.52199	582.532
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02425	1.21960	0.38978	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,045.34	1,045.34	0.02381	0.16358	0.78689	1,095.47
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11078	0.10858	0.08433	1.35143	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	538.979	538.979	0.00551	0.00331	0.01350	540.116
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04718	0.02205	1.29235	0.39639	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,046.16	1,046.16	0.02381	0.16402	0.02043	1,095.66
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07834	0.07756	0.05945	1.00625	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	391.392	391.392	0.00315	0.00236	0.16081	392.335
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03464	0.01669	0.91492	0.28030	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	746.920	746.920	0.01701	0.11684	0.24230	782.407
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01430	0.01415	0.01085	0.18364	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.7994	64.7994	0.00052	0.00039	0.02662	64.9556
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00632	0.00305	0.16697	0.05116	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	123.661	123.661	0.00282	0.01935	0.04012	129.536

3.165. Grading (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31909	1.10840	8.44929	19.7249	0.03371	0.24028	—	0.24028	0.22106	—	0.22106	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03594	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1081	13.1081	0.00075	0.00207	0.00673	13.7511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31909	1.10840	8.44929	19.7249	0.03371	0.24028	—	0.24028	0.22106	—	0.22106	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03845	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1911	13.1911	0.00075	0.00212	0.00018	13.8407
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.94221	0.79172	6.03521	14.0892	0.02408	0.17163	—	0.17163	0.15790	—	0.15790	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—

Onsite truck	0.00173	0.00110	0.02664	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.38782	9.38782	0.00054	0.00148	0.00208	9.84440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17195	0.14449	1.10142	2.57128	0.00439	0.03132	—	0.03132	0.02882	—	0.02882	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.55426	1.55426	0.00009	0.00025	0.00034	1.62985
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10637	0.10527	0.06063	1.64796	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	576.766	576.766	0.00441	0.00331	0.44326	578.305
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02425	1.20064	0.38184	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,032.83	1,032.83	0.02337	0.16358	0.67340	1,082.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10527	0.10307	0.08322	1.29963	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	535.091	535.091	0.00441	0.00331	0.01152	536.198
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04674	0.02205	1.27339	0.38845	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,033.66	1,033.66	0.02337	0.16402	0.01753	1,083.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07441	0.07362	0.05866	0.97082	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	388.572	388.572	0.00315	0.00236	0.13706	389.492
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03433	0.01669	0.90138	0.27463	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	737.988	737.988	0.01669	0.11684	0.20807	773.433
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01358	0.01344	0.01071	0.17717	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.3326	64.3326	0.00052	0.00039	0.02269	64.4848

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00627	0.00305	0.16450	0.05012	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	122.182	122.182	0.00276	0.01935	0.03445	128.051

3.166. Grading (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31909	1.10840	8.44929	19.7249	0.03371	0.24028	—	0.24028	0.22106	—	0.22106	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03594	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1081	13.1081	0.00075	0.00207	0.00673	13.7511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.31909	1.10840	8.44929	19.7249	0.03371	0.24028	—	0.24028	0.22106	—	0.22106	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03845	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.1911	13.1911	0.00075	0.00212	0.00018	13.8407
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.94221	0.79172	6.03521	14.0892	0.02408	0.17163	—	0.17163	0.15790	—	0.15790	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00110	0.02664	0.01783	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.38782	9.38782	0.00054	0.00148	0.00208	9.84440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17195	0.14449	1.10142	2.57128	0.00439	0.03132	—	0.03132	0.02882	—	0.02882	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00325	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.55426	1.55426	0.00009	0.00025	0.00034	1.62985
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10637	0.10527	0.06063	1.64796	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	576.766	576.766	0.00441	0.00331	0.44326	578.305
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02425	1.20064	0.38184	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,032.83	1,032.83	0.02337	0.16358	0.67340	1,082.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10527	0.10307	0.08322	1.29963	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	535.091	535.091	0.00441	0.00331	0.01152	536.198
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04674	0.02205	1.27339	0.38845	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,033.66	1,033.66	0.02337	0.16402	0.01753	1,083.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07441	0.07362	0.05866	0.97082	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	388.572	388.572	0.00315	0.00236	0.13706	389.492

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03433	0.01669	0.90138	0.27463	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	737.988	737.988	0.01669	0.11684	0.20807	773.433
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01358	0.01344	0.01071	0.17717	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	64.3326	64.3326	0.00052	0.00039	0.02269	64.4848
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00627	0.00305	0.16450	0.05012	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	122.182	122.182	0.00276	0.01935	0.03445	128.051

3.167. Grading (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29988	1.09226	8.23200	19.6737	0.03371	0.23150	—	0.23150	0.21298	—	0.21298	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00256	0.00163	0.03580	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9956	12.9956	0.00075	0.00207	0.00576	13.6377
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29988	1.09226	8.23200	19.6737	0.03371	0.23150	—	0.23150	0.21298	—	0.21298	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52

Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03832	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.0793	13.0793	0.00075	0.00212	0.00015	13.7289
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93103	0.78232	5.89611	14.0911	0.02414	0.16581	—	0.16581	0.15254	—	0.15254	—	2,613.56	2,613.56	0.10602	0.02120	—	2,622.53
Dust From Material Movement	—	—	—	—	—	—	0.29623	0.29623	—	0.03199	0.03199	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00111	0.02662	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.33317	9.33317	0.00054	0.00148	0.00178	9.79069
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16991	0.14277	1.07604	2.57163	0.00441	0.03026	—	0.03026	0.02784	—	0.02784	—	432.705	432.705	0.01755	0.00351	—	434.190
Dust From Material Movement	—	—	—	—	—	—	0.05406	0.05406	—	0.00584	0.00584	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.54521	1.54521	0.00009	0.00025	0.00029	1.62096
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.05952	1.60166	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	573.137	573.137	0.00331	0.00331	0.37910	574.584
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02425	1.19138	0.37390	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,022.03	1,022.03	0.02337	0.16358	0.57630	1,071.93

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.08322	1.27152	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	531.702	531.702	0.00441	0.00331	0.00980	532.807
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04674	0.02205	1.26413	0.38052	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,022.86	1,022.86	0.02337	0.16402	0.01501	1,072.34
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07145	0.05606	0.05882	0.95335	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	387.182	387.182	0.00316	0.00237	0.11697	388.084
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03442	0.01674	0.89721	0.26970	0.00663	0.01263	0.25092	0.26355	0.01263	0.06905	0.08168	—	732.271	732.271	0.01674	0.11717	0.17793	767.782
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01304	0.01023	0.01073	0.17399	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	64.1024	64.1024	0.00052	0.00039	0.01937	64.2517
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00628	0.00305	0.16374	0.04922	0.00121	0.00231	0.04579	0.04810	0.00231	0.01260	0.01491	—	121.236	121.236	0.00277	0.01940	0.02946	127.115

3.168. Grading (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29988	1.09226	8.23200	19.6737	0.03371	0.23150	—	0.23150	0.21298	—	0.21298	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—

Onsite truck	0.00256	0.00163	0.03580	0.02469	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9956	12.9956	0.00075	0.00207	0.00576	13.6377
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29988	1.09226	8.23200	19.6737	0.03371	0.23150	—	0.23150	0.21298	—	0.21298	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00141	0.03832	0.02535	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	13.0793	13.0793	0.00075	0.00212	0.00015	13.7289
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93103	0.78232	5.89611	14.0911	0.02414	0.16581	—	0.16581	0.15254	—	0.15254	—	2,613.56	2,613.56	0.10602	0.02120	—	2,622.53
Dust From Material Movement	—	—	—	—	—	—	0.29623	0.29623	—	0.03199	0.03199	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00111	0.02662	0.01787	0.00009	0.00013	0.73496	0.73508	0.00013	0.07352	0.07364	—	9.33317	9.33317	0.00054	0.00148	0.00178	9.79069
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16991	0.14277	1.07604	2.57163	0.00441	0.03026	—	0.03026	0.02784	—	0.02784	—	432.705	432.705	0.01755	0.00351	—	434.190
Dust From Material Movement	—	—	—	—	—	—	0.05406	0.05406	—	0.00584	0.00584	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00486	0.00326	0.00002	0.00002	0.13413	0.13415	0.00002	0.01342	0.01344	—	1.54521	1.54521	0.00009	0.00025	0.00029	1.62096

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.05952	1.60166	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	573.137	573.137	0.00331	0.00331	0.37910	574.584
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04938	0.02425	1.19138	0.37390	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,022.03	1,022.03	0.02337	0.16358	0.57630	1,071.93
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10196	0.07937	0.08322	1.27152	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	531.702	531.702	0.00441	0.00331	0.00980	532.807
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04674	0.02205	1.26413	0.38052	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,022.86	1,022.86	0.02337	0.16402	0.01501	1,072.34
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07145	0.05606	0.05882	0.95335	0.00000	0.00000	0.43419	0.43419	0.00000	0.10124	0.10124	—	387.182	387.182	0.00316	0.00237	0.11697	388.084
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03442	0.01674	0.89721	0.26970	0.00663	0.01263	0.25092	0.26355	0.01263	0.06905	0.08168	—	732.271	732.271	0.01674	0.11717	0.17793	767.782
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01304	0.01023	0.01073	0.17399	0.00000	0.00000	0.07924	0.07924	0.00000	0.01848	0.01848	—	64.1024	64.1024	0.00052	0.00039	0.01937	64.2517
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00628	0.00305	0.16374	0.04922	0.00121	0.00231	0.04579	0.04810	0.00231	0.01260	0.01491	—	121.236	121.236	0.00277	0.01940	0.02946	127.115

3.169. Grading (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.28681	1.08128	8.08752	19.6193	0.03371	0.22283	—	0.22283	0.20501	—	0.20501	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00172	0.03713	0.02601	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9010	12.9010	0.00075	0.00207	0.00496	13.5423
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28681	1.08128	8.08752	19.6193	0.03371	0.22283	—	0.22283	0.20501	—	0.20501	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03818	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9855	12.9855	0.00075	0.00212	0.00013	13.6351
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91915	0.77234	5.77680	14.0138	0.02408	0.15917	—	0.15917	0.14643	—	0.14643	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00110	0.02636	0.01792	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.24036	9.24036	0.00054	0.00148	0.00153	9.69639
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16775	0.14095	1.05427	2.55752	0.00439	0.02905	—	0.02905	0.02672	—	0.02672	—	431.523	431.523	0.01750	0.00350	—	433.004

Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00481	0.00327	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.52985	1.52985	0.00009	0.00025	0.00025	1.60535
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09866	0.07606	0.05952	1.55536	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	569.820	569.820	0.00331	0.00331	0.32078	571.209
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05027	0.02513	1.22842	0.39507	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,012.83	1,012.83	0.02337	0.16358	0.49559	1,062.65
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09755	0.07496	0.08212	1.24341	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	528.605	528.605	0.00441	0.00331	0.00834	529.709
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04674	0.02249	1.25487	0.38184	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,013.67	1,013.67	0.02337	0.16402	0.01286	1,063.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06968	0.05433	0.04331	0.91689	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	383.883	383.883	0.00315	0.00236	0.09915	384.765
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03433	0.01669	0.88153	0.26991	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	723.701	723.701	0.01669	0.11684	0.15313	759.091
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01272	0.00991	0.00790	0.16733	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	63.5563	63.5563	0.00052	0.00039	0.01642	63.7023
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00627	0.00305	0.16088	0.04926	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	119.817	119.817	0.00276	0.01935	0.02535	125.676

3.170. Grading (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28681	1.08128	8.08752	19.6193	0.03371	0.22283	—	0.22283	0.20501	—	0.20501	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00172	0.03713	0.02601	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9010	12.9010	0.00075	0.00207	0.00496	13.5423
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28681	1.08128	8.08752	19.6193	0.03371	0.22283	—	0.22283	0.20501	—	0.20501	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03818	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9855	12.9855	0.00075	0.00212	0.00013	13.6351
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91915	0.77234	5.77680	14.0138	0.02408	0.15917	—	0.15917	0.14643	—	0.14643	—	2,606.42	2,606.42	0.10573	0.02115	—	2,615.37
Dust From Material Movement	—	—	—	—	—	—	0.29543	0.29543	—	0.03190	0.03190	—	—	—	—	—	—	—

Onsite truck	0.00173	0.00110	0.02636	0.01792	0.00009	0.00013	0.73295	0.73307	0.00013	0.07332	0.07344	—	9.24036	9.24036	0.00054	0.00148	0.00153	9.69639
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16775	0.14095	1.05427	2.55752	0.00439	0.02905	—	0.02905	0.02672	—	0.02672	—	431.523	431.523	0.01750	0.00350	—	433.004
Dust From Material Movement	—	—	—	—	—	—	0.05392	0.05392	—	0.00582	0.00582	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00020	0.00481	0.00327	0.00002	0.00002	0.13376	0.13379	0.00002	0.01338	0.01340	—	1.52985	1.52985	0.00009	0.00025	0.00025	1.60535
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09866	0.07606	0.05952	1.55536	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	569.820	569.820	0.00331	0.00331	0.32078	571.209
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05027	0.02513	1.22842	0.39507	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,012.83	1,012.83	0.02337	0.16358	0.49559	1,062.65
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09755	0.07496	0.08212	1.24341	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	528.605	528.605	0.00441	0.00331	0.00834	529.709
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04674	0.02249	1.25487	0.38184	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,013.67	1,013.67	0.02337	0.16402	0.01286	1,063.15
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06968	0.05433	0.04331	0.91689	0.00000	0.00000	0.43300	0.43300	0.00000	0.10097	0.10097	—	383.883	383.883	0.00315	0.00236	0.09915	384.765
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.03433	0.01669	0.88153	0.26991	0.00661	0.01260	0.25023	0.26283	0.01260	0.06886	0.08146	—	723.701	723.701	0.01669	0.11684	0.15313	759.091
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01272	0.00991	0.00790	0.16733	0.00000	0.00000	0.07902	0.07902	0.00000	0.01843	0.01843	—	63.5563	63.5563	0.00052	0.00039	0.01642	63.7023

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00627	0.00305	0.16088	0.04926	0.00121	0.00230	0.04567	0.04797	0.00230	0.01257	0.01487	—	119.817	119.817	0.00276	0.01935	0.02535	125.676

3.171. Grading (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27609	1.07227	7.96735	19.5611	0.03371	0.21440	—	0.21440	0.19725	—	0.19725	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03549	0.02478	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.8231	12.8231	0.00071	0.00207	0.00429	13.4625
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27609	1.07227	7.96735	19.5611	0.03371	0.21440	—	0.21440	0.19725	—	0.19725	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03796	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9082	12.9082	0.00071	0.00212	0.00011	13.5566
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.44451	0.37351	2.77532	6.81383	0.01174	0.07468	—	0.07468	0.06871	—	0.06871	—	1,271.08	1,271.08	0.05156	0.01031	—	1,275.44
Dust From Material Movement	—	—	—	—	—	—	0.14407	0.14407	—	0.01556	0.01556	—	—	—	—	—	—	—
Onsite truck	0.00084	0.00055	0.01282	0.00874	0.00005	0.00006	0.35744	0.35750	0.00006	0.03575	0.03582	—	4.47920	4.47920	0.00025	0.00072	0.00065	4.70110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08112	0.06817	0.50650	1.24352	0.00214	0.01363	—	0.01363	0.01254	—	0.01254	—	210.441	210.441	0.00854	0.00171	—	211.164
Dust From Material Movement	—	—	—	—	—	—	0.02629	0.02629	—	0.00284	0.00284	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00234	0.00159	0.00001	0.00001	0.06523	0.06524	0.00001	0.00653	0.00654	—	0.74158	0.74158	0.00004	0.00012	0.00011	0.77832
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09535	0.07385	0.05952	1.52946	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.039	567.039	0.00331	0.00331	0.27266	568.380
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04894	0.02469	1.17242	0.36685	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,005.14	1,005.14	0.02293	0.16358	0.42876	1,054.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09425	0.07165	0.06173	1.21640	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	526.004	526.004	0.00441	0.00331	0.00706	527.106
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04674	0.02249	1.23679	0.37390	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,005.99	1,005.99	0.02293	0.16402	0.01114	1,055.46
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03245	0.02496	0.02112	0.43773	0.00000	0.00000	0.21116	0.21116	0.00000	0.04924	0.04924	—	186.282	186.282	0.00154	0.00115	0.04104	186.705

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01674	0.00829	0.42683	0.12886	0.00323	0.00614	0.12203	0.12818	0.00614	0.03358	0.03972	—	350.252	350.252	0.00799	0.05698	0.06457	367.497
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00592	0.00455	0.00385	0.07989	0.00000	0.00000	0.03854	0.03854	0.00000	0.00899	0.00899	—	30.8411	30.8411	0.00025	0.00019	0.00679	30.9111
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00306	0.00151	0.07790	0.02352	0.00059	0.00112	0.02227	0.02339	0.00112	0.00613	0.00725	—	57.9883	57.9883	0.00132	0.00943	0.01069	60.8434

3.172. Grading (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27609	1.07227	7.96735	19.5611	0.03371	0.21440	—	0.21440	0.19725	—	0.19725	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52
Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03549	0.02478	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.8231	12.8231	0.00071	0.00207	0.00429	13.4625
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27609	1.07227	7.96735	19.5611	0.03371	0.21440	—	0.21440	0.19725	—	0.19725	—	3,648.99	3,648.99	0.14802	0.02960	—	3,661.52

Dust From Material Movement	—	—	—	—	—	—	0.41360	0.41360	—	0.04466	0.04466	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00146	0.03796	0.02549	0.00013	0.00018	1.48461	1.48478	0.00018	0.14839	0.14857	—	12.9082	12.9082	0.00071	0.00212	0.00011	13.5566
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44451	0.37351	2.77532	6.81383	0.01174	0.07468	—	0.07468	0.06871	—	0.06871	—	1,271.08	1,271.08	0.05156	0.01031	—	1,275.44
Dust From Material Movement	—	—	—	—	—	—	0.14407	0.14407	—	0.01556	0.01556	—	—	—	—	—	—	—
Onsite truck	0.00084	0.00055	0.01282	0.00874	0.00005	0.00006	0.35744	0.35750	0.00006	0.03575	0.03582	—	4.47920	4.47920	0.00025	0.00072	0.00065	4.70110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08112	0.06817	0.50650	1.24352	0.00214	0.01363	—	0.01363	0.01254	—	0.01254	—	210.441	210.441	0.00854	0.00171	—	211.164
Dust From Material Movement	—	—	—	—	—	—	0.02629	0.02629	—	0.00284	0.00284	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00234	0.00159	0.00001	0.00001	0.06523	0.06524	0.00001	0.00653	0.00654	—	0.74158	0.74158	0.00004	0.00012	0.00011	0.77832
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09535	0.07385	0.05952	1.52946	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	567.039	567.039	0.00331	0.00331	0.27266	568.380
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04894	0.02469	1.17242	0.36685	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,005.14	1,005.14	0.02293	0.16358	0.42876	1,054.89

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09425	0.07165	0.06173	1.21640	0.00000	0.00000	0.65355	0.65355	0.00000	0.15319	0.15319	—	526.004	526.004	0.00441	0.00331	0.00706	527.106
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04674	0.02249	1.23679	0.37390	0.00926	0.01764	0.37080	0.38844	0.01764	0.10152	0.11916	—	1,005.99	1,005.99	0.02293	0.16402	0.01114	1,055.46
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03245	0.02496	0.02112	0.43773	0.00000	0.00000	0.21116	0.21116	0.00000	0.04924	0.04924	—	186.282	186.282	0.00154	0.00115	0.04104	186.705
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01674	0.00829	0.42683	0.12886	0.00323	0.00614	0.12203	0.12818	0.00614	0.03358	0.03972	—	350.252	350.252	0.00799	0.05698	0.06457	367.497
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00592	0.00455	0.00385	0.07989	0.00000	0.00000	0.03854	0.03854	0.00000	0.00899	0.00899	—	30.8411	30.8411	0.00025	0.00019	0.00679	30.9111
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00306	0.00151	0.07790	0.02352	0.00059	0.00112	0.02227	0.02339	0.00112	0.00613	0.00725	—	57.9883	57.9883	0.00132	0.00943	0.01069	60.8434

3.173. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.06872	0.89302	9.25804	12.8326	0.02412	0.22734	—	0.22734	0.20916	—	0.20916	—	2,445.44	2,445.44	0.09920	0.01984	—	2,453.83
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.06872	0.89302	9.25804	12.8326	0.02412	0.22734	—	0.22734	0.20916	—	0.20916	—	2,445.44	2,445.44	0.09920	0.01984	—	2,453.83
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62952	0.52603	5.45337	7.55891	0.01421	0.13392	—	0.13392	0.12320	—	0.12320	—	1,440.47	1,440.47	0.05843	0.01169	—	1,445.41
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11489	0.09600	0.99524	1.37950	0.00259	0.02444	—	0.02444	0.02248	—	0.02248	—	238.485	238.485	0.00967	0.00193	—	239.304
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.11093	1.87393	1.72512	29.0239	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,610.64	6,610.64	0.07716	0.23700	19.8008	6,702.99
Vendor	0.13369	0.07654	2.63602	1.05152	0.01799	0.03598	0.68447	0.72045	0.03598	0.18911	0.22509	—	2,392.34	2,392.34	0.05538	0.33792	5.37659	2,499.80
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.84086	1.79677	1.97314	23.2588	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,132.76	6,132.76	0.08818	0.23700	0.51324	6,206.11
Vendor	0.12840	0.07125	2.78805	1.06351	0.01799	0.03598	0.68447	0.72045	0.03598	0.18911	0.22509	—	2,394.08	2,394.08	0.05538	0.33792	0.13943	2,496.30
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	1.07136	1.04538	1.14927	14.2815	0.00000	0.00000	3.57080	3.57080	0.00000	0.83264	0.83264	—	3,672.14	3,672.14	0.05194	0.13960	5.03298	3,720.08
Vendor	0.07667	0.04301	1.61714	0.61814	0.01060	0.02119	0.37858	0.39978	0.02119	0.10524	0.12644	—	1,409.62	1,409.62	0.03262	0.19905	1.36531	1,471.11
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19552	0.19078	0.20974	2.60637	0.00000	0.00000	0.65167	0.65167	0.00000	0.15196	0.15196	—	607.965	607.965	0.00860	0.02311	0.83327	615.901
Vendor	0.01399	0.00785	0.29513	0.11281	0.00193	0.00387	0.06909	0.07296	0.00387	0.01921	0.02307	—	233.378	233.378	0.00540	0.03296	0.22604	243.560
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.174. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.06872	0.89302	9.25804	12.8326	0.02412	0.22734	—	0.22734	0.20916	—	0.20916	—	2,445.44	2,445.44	0.09920	0.01984	—	2,453.83
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.06872	0.89302	9.25804	12.8326	0.02412	0.22734	—	0.22734	0.20916	—	0.20916	—	2,445.44	2,445.44	0.09920	0.01984	—	2,453.83
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.62952	0.52603	5.45337	7.55891	0.01421	0.13392	—	0.13392	0.12320	—	0.12320	—	1,440.47	1,440.47	0.05843	0.01169	—	1,445.41
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11489	0.09600	0.99524	1.37950	0.00259	0.02444	—	0.02444	0.02248	—	0.02248	—	238.485	238.485	0.00967	0.00193	—	239.304
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.11093	1.87393	1.72512	29.0239	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,610.64	6,610.64	0.07716	0.23700	19.8008	6,702.99
Vendor	0.13369	0.07654	2.63602	1.05152	0.01799	0.03598	0.68447	0.72045	0.03598	0.18911	0.22509	—	2,392.34	2,392.34	0.05538	0.33792	5.37659	2,499.80
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.84086	1.79677	1.97314	23.2588	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,132.76	6,132.76	0.08818	0.23700	0.51324	6,206.11
Vendor	0.12840	0.07125	2.78805	1.06351	0.01799	0.03598	0.68447	0.72045	0.03598	0.18911	0.22509	—	2,394.08	2,394.08	0.05538	0.33792	0.13943	2,496.30
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.07136	1.04538	1.14927	14.2815	0.00000	0.00000	3.57080	3.57080	0.00000	0.83264	0.83264	—	3,672.14	3,672.14	0.05194	0.13960	5.03298	3,720.08
Vendor	0.07667	0.04301	1.61714	0.61814	0.01060	0.02119	0.37858	0.39978	0.02119	0.10524	0.12644	—	1,409.62	1,409.62	0.03262	0.19905	1.36531	1,471.11
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19552	0.19078	0.20974	2.60637	0.00000	0.00000	0.65167	0.65167	0.00000	0.15196	0.15196	—	607.965	607.965	0.00860	0.02311	0.83327	615.901
Vendor	0.01399	0.00785	0.29513	0.11281	0.00193	0.00387	0.06909	0.07296	0.00387	0.01921	0.02307	—	233.378	233.378	0.00540	0.03296	0.22604	243.560

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.175. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03062	0.86126	8.97329	12.7640	0.02412	0.20804	—	0.20804	0.19140	—	0.19140	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03062	0.86126	8.97329	12.7640	0.02412	0.20804	—	0.20804	0.19140	—	0.19140	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73616	0.61518	6.40949	9.11711	0.01723	0.14860	—	0.14860	0.13671	—	0.13671	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.13435	0.11227	1.16973	1.66387	0.00314	0.02712	—	0.02712	0.02495	—	0.02495	—	289.186	289.186	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.81881	1.79677	1.51017	27.1940	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,495.20	6,495.20	0.06614	0.23700	17.7303	6,585.21
Vendor	0.13192	0.05679	2.51574	0.99226	0.01799	0.03598	0.68447	0.72045	0.03598	0.18911	0.22509	—	2,326.83	2,326.83	0.05362	0.33792	4.81063	2,433.68
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.75267	1.51568	1.74716	21.7596	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,026.17	6,026.17	0.08818	0.23700	0.46075	6,099.46
Vendor	0.12840	0.05326	2.66601	1.02400	0.01799	0.03598	0.68447	0.72045	0.03598	0.18911	0.22509	—	2,328.62	2,328.62	0.05362	0.33792	0.12451	2,430.78
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.25191	1.22829	1.24010	16.2630	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,375.51	4,375.51	0.05512	0.16928	5.47822	4,432.82
Vendor	0.09297	0.03931	1.87380	0.71883	0.01285	0.02570	0.45908	0.48478	0.02570	0.12762	0.15332	—	1,662.56	1,662.56	0.03830	0.24137	1.47920	1,736.93
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22847	0.22416	0.22632	2.96800	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	724.416	724.416	0.00913	0.02803	0.90698	733.903
Vendor	0.01697	0.00717	0.34197	0.13119	0.00235	0.00469	0.08378	0.08847	0.00469	0.02329	0.02798	—	275.256	275.256	0.00634	0.03996	0.24490	287.568
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.176. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03062	0.86126	8.97329	12.7640	0.02412	0.20804	—	0.20804	0.19140	—	0.19140	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03062	0.86126	8.97329	12.7640	0.02412	0.20804	—	0.20804	0.19140	—	0.19140	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73616	0.61518	6.40949	9.11711	0.01723	0.14860	—	0.14860	0.13671	—	0.13671	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13435	0.11227	1.16973	1.66387	0.00314	0.02712	—	0.02712	0.02495	—	0.02495	—	289.186	289.186	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.81881	1.79677	1.51017	27.1940	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,495.20	6,495.20	0.06614	0.23700	17.7303	6,585.21
Vendor	0.13192	0.05679	2.51574	0.99226	0.01799	0.03598	0.68447	0.72045	0.03598	0.18911	0.22509	—	2,326.83	2,326.83	0.05362	0.33792	4.81063	2,433.68
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.75267	1.51568	1.74716	21.7596	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,026.17	6,026.17	0.08818	0.23700	0.46075	6,099.46
Vendor	0.12840	0.05326	2.66601	1.02400	0.01799	0.03598	0.68447	0.72045	0.03598	0.18911	0.22509	—	2,328.62	2,328.62	0.05362	0.33792	0.12451	2,430.78
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.25191	1.22829	1.24010	16.2630	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,375.51	4,375.51	0.05512	0.16928	5.47822	4,432.82
Vendor	0.09297	0.03931	1.87380	0.71883	0.01285	0.02570	0.45908	0.48478	0.02570	0.12762	0.15332	—	1,662.56	1,662.56	0.03830	0.24137	1.47920	1,736.93
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22847	0.22416	0.22632	2.96800	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	724.416	724.416	0.00913	0.02803	0.90698	733.903
Vendor	0.01697	0.00717	0.34197	0.13119	0.00235	0.00469	0.08378	0.08847	0.00469	0.02329	0.02798	—	275.256	275.256	0.00634	0.03996	0.24490	287.568
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.177. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	1.00241	0.83776	8.81816	12.7442	0.02412	0.19588	—	0.19588	0.18021	—	0.18021	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00241	0.83776	8.81816	12.7442	0.02412	0.19588	—	0.19588	0.18021	—	0.18021	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71601	0.59840	6.29869	9.10301	0.01723	0.13991	—	0.13991	0.12872	—	0.12872	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13067	0.10921	1.14951	1.66130	0.00314	0.02553	—	0.02553	0.02349	—	0.02349	—	289.186	289.186	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.74165	1.51568	1.28419	25.5681	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,386.38	6,386.38	0.06614	0.23700	15.8056	6,474.47
Vendor	0.13192	0.05679	2.41344	0.97074	0.01799	0.03598	0.68447	0.72045	0.01799	0.18911	0.20710	—	2,256.85	2,256.85	0.05362	0.31993	4.24467	2,357.78
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.68654	1.44954	1.53221	20.4754	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,925.56	5,925.56	0.07716	0.23700	0.41118	5,998.52
Vendor	0.12663	0.05326	2.54572	0.99896	0.01799	0.03598	0.68447	0.72045	0.01799	0.18911	0.20710	—	2,258.68	2,258.68	0.05362	0.31993	0.11010	2,355.47
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.19680	1.02751	1.08656	15.2158	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,302.53	4,302.53	0.05512	0.16928	4.87416	4,359.23
Vendor	0.09297	0.03931	1.80074	0.70346	0.01285	0.02570	0.45908	0.48478	0.01285	0.12762	0.14047	—	1,612.59	1,612.59	0.03830	0.22852	1.31015	1,682.95
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21842	0.18752	0.19830	2.77689	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	712.333	712.333	0.00913	0.02803	0.80697	721.720
Vendor	0.01697	0.00717	0.32863	0.12838	0.00235	0.00469	0.08378	0.08847	0.00235	0.02329	0.02564	—	266.982	266.982	0.00634	0.03783	0.21691	278.632
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.178. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00241	0.83776	8.81816	12.7442	0.02412	0.19588	—	0.19588	0.18021	—	0.18021	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.00241	0.83776	8.81816	12.7442	0.02412	0.19588	—	0.19588	0.18021	—	0.18021	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71601	0.59840	6.29869	9.10301	0.01723	0.13991	—	0.13991	0.12872	—	0.12872	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13067	0.10921	1.14951	1.66130	0.00314	0.02553	—	0.02553	0.02349	—	0.02349	—	289.186	289.186	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.74165	1.51568	1.28419	25.5681	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,386.38	6,386.38	0.06614	0.23700	15.8056	6,474.47
Vendor	0.13192	0.05679	2.41344	0.97074	0.01799	0.03598	0.68447	0.72045	0.01799	0.18911	0.20710	—	2,256.85	2,256.85	0.05362	0.31993	4.24467	2,357.78
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.68654	1.44954	1.53221	20.4754	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,925.56	5,925.56	0.07716	0.23700	0.41118	5,998.52
Vendor	0.12663	0.05326	2.54572	0.99896	0.01799	0.03598	0.68447	0.72045	0.01799	0.18911	0.20710	—	2,258.68	2,258.68	0.05362	0.31993	0.11010	2,355.47
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	1.19680	1.02751	1.08656	15.2158	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,302.53	4,302.53	0.05512	0.16928	4.87416	4,359.23
Vendor	0.09297	0.03931	1.80074	0.70346	0.01285	0.02570	0.45908	0.48478	0.01285	0.12762	0.14047	—	1,612.59	1,612.59	0.03830	0.22852	1.31015	1,682.95
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21842	0.18752	0.19830	2.77689	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	712.333	712.333	0.00913	0.02803	0.80697	721.720
Vendor	0.01697	0.00717	0.32863	0.12838	0.00235	0.00469	0.08378	0.08847	0.00235	0.02329	0.02564	—	266.982	266.982	0.00634	0.03783	0.21691	278.632
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.179. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97856	0.81788	8.59937	12.7003	0.02412	0.18428	—	0.18428	0.16953	—	0.16953	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97856	0.81788	8.59937	12.7003	0.02412	0.18428	—	0.18428	0.16953	—	0.16953	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.69897	0.58420	6.14241	9.07165	0.01723	0.13163	—	0.13163	0.12110	—	0.12110	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12756	0.10662	1.12099	1.65558	0.00314	0.02402	—	0.02402	0.02210	—	0.02210	—	289.186	289.186	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.67551	1.44954	1.27317	23.9532	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,285.80	6,285.80	0.06614	0.03307	14.0268	6,311.33
Vendor	0.11393	0.05679	2.31115	0.93300	0.01799	0.03598	0.68447	0.72045	0.01799	0.18911	0.20710	—	2,183.14	2,183.14	0.05362	0.31817	3.70444	2,283.00
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.62040	1.38340	1.52119	19.1912	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,832.60	5,832.60	0.07716	0.23700	0.36452	5,905.52
Vendor	0.10864	0.05326	2.44343	0.95945	0.01799	0.03598	0.68447	0.72045	0.01799	0.18911	0.20710	—	2,185.01	2,185.01	0.05362	0.31993	0.09596	2,281.79
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.14955	0.98027	1.07082	14.3222	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,235.00	4,235.00	0.04724	0.16928	4.33259	4,290.96
Vendor	0.08012	0.03931	1.72767	0.67524	0.01285	0.02570	0.45908	0.48478	0.01285	0.12762	0.14047	—	1,559.95	1,559.95	0.03830	0.22852	1.14110	1,630.15
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20979	0.17890	0.19542	2.61380	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	701.152	701.152	0.00782	0.02803	0.71731	710.417
Vendor	0.01462	0.00717	0.31530	0.12323	0.00235	0.00469	0.08378	0.08847	0.00235	0.02329	0.02564	—	258.267	258.267	0.00634	0.03783	0.18892	269.889

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.180. Building Construction (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97856	0.81788	8.59937	12.7003	0.02412	0.18428	—	0.18428	0.16953	—	0.16953	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97856	0.81788	8.59937	12.7003	0.02412	0.18428	—	0.18428	0.16953	—	0.16953	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69897	0.58420	6.14241	9.07165	0.01723	0.13163	—	0.13163	0.12110	—	0.12110	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.12756	0.10662	1.12099	1.65558	0.00314	0.02402	—	0.02402	0.02210	—	0.02210	—	289.186	289.186	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.67551	1.44954	1.27317	23.9532	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,285.80	6,285.80	0.06614	0.03307	14.0268	6,311.33
Vendor	0.11393	0.05679	2.31115	0.93300	0.01799	0.03598	0.68447	0.72045	0.01799	0.18911	0.20710	—	2,183.14	2,183.14	0.05362	0.31817	3.70444	2,283.00
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.62040	1.38340	1.52119	19.1912	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,832.60	5,832.60	0.07716	0.23700	0.36452	5,905.52
Vendor	0.10864	0.05326	2.44343	0.95945	0.01799	0.03598	0.68447	0.72045	0.01799	0.18911	0.20710	—	2,185.01	2,185.01	0.05362	0.31993	0.09596	2,281.79
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.14955	0.98027	1.07082	14.3222	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,235.00	4,235.00	0.04724	0.16928	4.33259	4,290.96
Vendor	0.08012	0.03931	1.72767	0.67524	0.01285	0.02570	0.45908	0.48478	0.01285	0.12762	0.14047	—	1,559.95	1,559.95	0.03830	0.22852	1.14110	1,630.15
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20979	0.17890	0.19542	2.61380	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	701.152	701.152	0.00782	0.02803	0.71731	710.417
Vendor	0.01462	0.00717	0.31530	0.12323	0.00235	0.00469	0.08378	0.08847	0.00235	0.02329	0.02564	—	258.267	258.267	0.00634	0.03783	0.18892	269.889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.181. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95267	0.79624	8.39006	12.6390	0.02412	0.16753	—	0.16753	0.15413	—	0.15413	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95267	0.79624	8.39006	12.6390	0.02412	0.16753	—	0.16753	0.15413	—	0.15413	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68234	0.57030	6.00932	9.05256	0.01728	0.11999	—	0.11999	0.11039	—	0.11039	—	1,751.49	1,751.49	0.07105	0.01421	—	1,757.50
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12453	0.10408	1.09670	1.65209	0.00315	0.02190	—	0.02190	0.02015	—	0.02015	—	289.979	289.979	0.01176	0.00235	—	290.974
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.59835	1.37238	1.05822	22.5643	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,194.71	6,194.71	0.05512	0.03307	12.3645	6,218.31
Vendor	0.11393	0.05679	2.22685	0.91148	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	2,110.67	2,110.67	0.05362	0.30018	3.18994	2,204.65
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.55426	1.31726	1.29522	18.1551	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,748.33	5,748.33	0.06614	0.23700	0.32078	5,820.93
Vendor	0.10864	0.05326	2.36265	0.91994	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	2,112.58	2,112.58	0.05362	0.30195	0.08258	2,203.98
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.11323	0.94348	0.91979	13.4890	0.00000	0.00000	4.34190	4.34190	0.00000	1.01244	1.01244	—	4,185.25	4,185.25	0.04737	0.02369	3.82229	4,197.32
Vendor	0.08034	0.03941	1.66040	0.66168	0.01289	0.01289	0.46034	0.47322	0.01289	0.12797	0.14085	—	1,512.33	1,512.33	0.03840	0.21500	0.98392	1,578.34
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20316	0.17218	0.16786	2.46174	0.00000	0.00000	0.79240	0.79240	0.00000	0.18477	0.18477	—	692.916	692.916	0.00784	0.00392	0.63282	694.913
Vendor	0.01466	0.00719	0.30302	0.12076	0.00235	0.00235	0.08401	0.08636	0.00235	0.02335	0.02571	—	250.383	250.383	0.00636	0.03560	0.16290	261.312
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.182. Building Construction (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.95267	0.79624	8.39006	12.6390	0.02412	0.16753	—	0.16753	0.15413	—	0.15413	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95267	0.79624	8.39006	12.6390	0.02412	0.16753	—	0.16753	0.15413	—	0.15413	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68234	0.57030	6.00932	9.05256	0.01728	0.11999	—	0.11999	0.11039	—	0.11039	—	1,751.49	1,751.49	0.07105	0.01421	—	1,757.50
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12453	0.10408	1.09670	1.65209	0.00315	0.02190	—	0.02190	0.02015	—	0.02015	—	289.979	289.979	0.01176	0.00235	—	290.974
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.59835	1.37238	1.05822	22.5643	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,194.71	6,194.71	0.05512	0.03307	12.3645	6,218.31
Vendor	0.11393	0.05679	2.22685	0.91148	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	2,110.67	2,110.67	0.05362	0.30018	3.18994	2,204.65
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.55426	1.31726	1.29522	18.1551	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,748.33	5,748.33	0.06614	0.23700	0.32078	5,820.93
Vendor	0.10864	0.05326	2.36265	0.91994	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	2,112.58	2,112.58	0.05362	0.30195	0.08258	2,203.98
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.11323	0.94348	0.91979	13.4890	0.00000	0.00000	4.34190	4.34190	0.00000	1.01244	1.01244	—	4,185.25	4,185.25	0.04737	0.02369	3.82229	4,197.32
Vendor	0.08034	0.03941	1.66040	0.66168	0.01289	0.01289	0.46034	0.47322	0.01289	0.12797	0.14085	—	1,512.33	1,512.33	0.03840	0.21500	0.98392	1,578.34
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20316	0.17218	0.16786	2.46174	0.00000	0.00000	0.79240	0.79240	0.00000	0.18477	0.18477	—	692.916	692.916	0.00784	0.00392	0.63282	694.913
Vendor	0.01466	0.00719	0.30302	0.12076	0.00235	0.00235	0.08401	0.08636	0.00235	0.02335	0.02571	—	250.383	250.383	0.00636	0.03560	0.16290	261.312
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.183. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93337	0.78010	8.22017	12.6293	0.02412	0.15205	—	0.15205	0.13989	—	0.13989	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.93337	0.78010	8.22017	12.6293	0.02412	0.15205	—	0.15205	0.13989	—	0.13989	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66669	0.55721	5.87155	9.02095	0.01723	0.10861	—	0.10861	0.09992	—	0.09992	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12167	0.10169	1.07156	1.64632	0.00314	0.01982	—	0.01982	0.01824	—	0.01824	—	289.187	289.187	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.33931	1.31726	1.04720	21.4014	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,113.32	6,113.32	0.05512	0.03307	10.8773	6,135.43
Vendor	0.11217	0.05503	2.14607	0.87374	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	2,040.85	2,040.85	0.05362	0.30018	2.72688	2,134.37
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.30624	1.27317	1.28419	17.1299	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,672.75	5,672.75	0.06614	0.03307	0.28170	5,684.54
Vendor	0.10864	0.05326	2.26212	0.90019	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	2,042.79	2,042.79	0.05362	0.30018	0.07074	2,133.66
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.91728	0.90153	0.76374	12.7356	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,118.99	4,118.99	0.04724	0.02362	3.35359	4,130.56
Vendor	0.07886	0.03931	1.59690	0.63292	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,458.33	1,458.33	0.03830	0.21442	0.83975	1,524.03
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16740	0.16453	0.13938	2.32425	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	681.946	681.946	0.00782	0.00391	0.55522	683.862
Vendor	0.01439	0.00717	0.29143	0.11551	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	241.444	241.444	0.00634	0.03550	0.13903	252.320
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.184. Building Construction (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93337	0.78010	8.22017	12.6293	0.02412	0.15205	—	0.15205	0.13989	—	0.13989	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.93337	0.78010	8.22017	12.6293	0.02412	0.15205	—	0.15205	0.13989	—	0.13989	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.66669	0.55721	5.87155	9.02095	0.01723	0.10861	—	0.10861	0.09992	—	0.09992	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12167	0.10169	1.07156	1.64632	0.00314	0.01982	—	0.01982	0.01824	—	0.01824	—	289.187	289.187	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.33931	1.31726	1.04720	21.4014	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,113.32	6,113.32	0.05512	0.03307	10.8773	6,135.43
Vendor	0.11217	0.05503	2.14607	0.87374	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	2,040.85	2,040.85	0.05362	0.30018	2.72688	2,134.37
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.30624	1.27317	1.28419	17.1299	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,672.75	5,672.75	0.06614	0.03307	0.28170	5,684.54
Vendor	0.10864	0.05326	2.26212	0.90019	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	2,042.79	2,042.79	0.05362	0.30018	0.07074	2,133.66
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.91728	0.90153	0.76374	12.7356	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,118.99	4,118.99	0.04724	0.02362	3.35359	4,130.56
Vendor	0.07886	0.03931	1.59690	0.63292	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,458.33	1,458.33	0.03830	0.21442	0.83975	1,524.03
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16740	0.16453	0.13938	2.32425	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	681.946	681.946	0.00782	0.00391	0.55522	683.862
Vendor	0.01439	0.00717	0.29143	0.11551	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	241.444	241.444	0.00634	0.03550	0.13903	252.320

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.185. Building Construction (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91727	0.76663	8.09724	12.6160	0.02412	0.14229	—	0.14229	0.13091	—	0.13091	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91727	0.76663	8.09724	12.6160	0.02412	0.14229	—	0.14229	0.13091	—	0.13091	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65520	0.54759	5.78375	9.01144	0.01723	0.10164	—	0.10164	0.09351	—	0.09351	—	1,746.71	1,746.71	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.11957	0.09994	1.05553	1.64459	0.00314	0.01855	—	0.01855	0.01707	—	0.01707	—	289.188	289.188	0.01173	0.00235	—	290.180
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27317	1.25112	0.83225	20.2384	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,037.72	6,037.72	0.05512	0.03307	9.47753	6,058.43
Vendor	0.11041	0.05503	2.08152	0.85398	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,974.13	1,974.13	0.05185	0.28219	2.31528	2,061.83
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.24010	1.20703	1.06924	16.1158	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,602.56	5,602.56	0.06614	0.03307	0.24554	5,614.31
Vendor	0.10864	0.05150	2.19933	0.88044	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,976.10	1,976.10	0.05185	0.28219	0.06020	2,061.55
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.88579	0.87004	0.75587	12.0270	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,068.15	4,068.15	0.03937	0.02362	2.91616	4,079.09
Vendor	0.07886	0.03805	1.55205	0.61755	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,410.68	1,410.68	0.03704	0.20157	0.71480	1,472.39
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16166	0.15878	0.13795	2.19493	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	673.528	673.528	0.00652	0.00391	0.48280	675.339
Vendor	0.01439	0.00694	0.28325	0.11270	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	233.555	233.555	0.00613	0.03337	0.11834	243.771
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.186. Building Construction (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91727	0.76663	8.09724	12.6160	0.02412	0.14229	—	0.14229	0.13091	—	0.13091	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91727	0.76663	8.09724	12.6160	0.02412	0.14229	—	0.14229	0.13091	—	0.13091	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65520	0.54759	5.78375	9.01144	0.01723	0.10164	—	0.10164	0.09351	—	0.09351	—	1,746.71	1,746.71	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11957	0.09994	1.05553	1.64459	0.00314	0.01855	—	0.01855	0.01707	—	0.01707	—	289.188	289.188	0.01173	0.00235	—	290.180
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27317	1.25112	0.83225	20.2384	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	6,037.72	6,037.72	0.05512	0.03307	9.47753	6,058.43
Vendor	0.11041	0.05503	2.08152	0.85398	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,974.13	1,974.13	0.05185	0.28219	2.31528	2,061.83
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.24010	1.20703	1.06924	16.1158	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,602.56	5,602.56	0.06614	0.03307	0.24554	5,614.31
Vendor	0.10864	0.05150	2.19933	0.88044	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,976.10	1,976.10	0.05185	0.28219	0.06020	2,061.55
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.88579	0.87004	0.75587	12.0270	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,068.15	4,068.15	0.03937	0.02362	2.91616	4,079.09
Vendor	0.07886	0.03805	1.55205	0.61755	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,410.68	1,410.68	0.03704	0.20157	0.71480	1,472.39
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16166	0.15878	0.13795	2.19493	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	673.528	673.528	0.00652	0.00391	0.48280	675.339
Vendor	0.01439	0.00694	0.28325	0.11270	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	233.555	233.555	0.00613	0.03337	0.11834	243.771
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.187. Building Construction (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.90281	0.75450	7.94055	12.5372	0.02412	0.13578	—	0.13578	0.12492	—	0.12492	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90281	0.75450	7.94055	12.5372	0.02412	0.13578	—	0.13578	0.12492	—	0.12492	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64486	0.53893	5.67182	8.95511	0.01723	0.09699	—	0.09699	0.08923	—	0.08923	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11769	0.09835	1.03511	1.63431	0.00314	0.01770	—	0.01770	0.01628	—	0.01628	—	289.186	289.186	0.01173	0.00235	—	290.178
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.25112	1.22908	0.83225	19.3015	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,970.20	5,970.20	0.04409	0.03307	8.22358	5,989.38
Vendor	0.11041	0.05503	2.00074	0.83423	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,911.13	1,911.13	0.05185	0.28219	1.95255	1,998.47
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.21805	1.18498	1.06924	15.3387	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,539.84	5,539.84	0.05512	0.03307	0.21288	5,551.28
Vendor	0.10864	0.05150	2.13654	0.85892	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,913.12	1,913.12	0.05185	0.28219	0.05068	1,998.57
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.87004	0.85429	0.74800	11.4877	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,022.64	4,022.64	0.03937	0.02362	2.54123	4,033.21
Vendor	0.07760	0.03805	1.49436	0.60344	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,365.69	1,365.69	0.03704	0.20157	0.60271	1,427.29
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15878	0.15591	0.13651	2.09650	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	665.994	665.994	0.00652	0.00391	0.42073	667.743
Vendor	0.01416	0.00694	0.27272	0.11013	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	226.106	226.106	0.00613	0.03337	0.09979	236.303
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.188. Building Construction (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90281	0.75450	7.94055	12.5372	0.02412	0.13578	—	0.13578	0.12492	—	0.12492	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.90281	0.75450	7.94055	12.5372	0.02412	0.13578	—	0.13578	0.12492	—	0.12492	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64486	0.53893	5.67182	8.95511	0.01723	0.09699	—	0.09699	0.08923	—	0.08923	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11769	0.09835	1.03511	1.63431	0.00314	0.01770	—	0.01770	0.01628	—	0.01628	—	289.186	289.186	0.01173	0.00235	—	290.178
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.25112	1.22908	0.83225	19.3015	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,970.20	5,970.20	0.04409	0.03307	8.22358	5,989.38
Vendor	0.11041	0.05503	2.00074	0.83423	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,911.13	1,911.13	0.05185	0.28219	1.95255	1,998.47
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.21805	1.18498	1.06924	15.3387	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,539.84	5,539.84	0.05512	0.03307	0.21288	5,551.28
Vendor	0.10864	0.05150	2.13654	0.85892	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,913.12	1,913.12	0.05185	0.28219	0.05068	1,998.57
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.87004	0.85429	0.74800	11.4877	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	4,022.64	4,022.64	0.03937	0.02362	2.54123	4,033.21
Vendor	0.07760	0.03805	1.49436	0.60344	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,365.69	1,365.69	0.03704	0.20157	0.60271	1,427.29
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15878	0.15591	0.13651	2.09650	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	665.994	665.994	0.00652	0.00391	0.42073	667.743
Vendor	0.01416	0.00694	0.27272	0.11013	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	226.106	226.106	0.00613	0.03337	0.09979	236.303
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.189. Building Construction (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88695	0.74119	7.75470	12.4529	0.02412	0.12786	—	0.12786	0.11763	—	0.11763	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88695	0.74119	7.75470	12.4529	0.02412	0.12786	—	0.12786	0.11763	—	0.11763	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.63527	0.53087	5.55425	8.91932	0.01728	0.09158	—	0.09158	0.08425	—	0.08425	—	1,751.49	1,751.49	0.07105	0.01421	—	1,757.50
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11594	0.09688	1.01365	1.62778	0.00315	0.01671	—	0.01671	0.01538	—	0.01538	—	289.979	289.979	0.01176	0.00235	—	290.974
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.21805	1.19601	0.82122	18.3645	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,910.29	5,910.29	0.04409	0.03307	7.08628	5,928.33
Vendor	0.09242	0.05503	1.95594	0.81624	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,853.39	1,853.39	0.03386	0.28219	1.63356	1,939.96
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.18498	1.16294	1.05822	14.5726	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,484.13	5,484.13	0.05512	0.03307	0.18372	5,495.54
Vendor	0.08713	0.05150	2.07552	0.83917	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,855.41	1,855.41	0.03386	0.28219	0.04245	1,940.39
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.84874	0.83295	0.60398	10.9783	0.00000	0.00000	4.34190	4.34190	0.00000	1.01244	1.01244	—	3,993.05	3,993.05	0.03948	0.02369	2.19312	4,003.29
Vendor	0.06493	0.03815	1.45474	0.59220	0.01289	0.01289	0.46034	0.47322	0.01289	0.12797	0.14085	—	1,328.09	1,328.09	0.02425	0.20212	0.50486	1,389.43
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15489	0.15201	0.11023	2.00354	0.00000	0.00000	0.79240	0.79240	0.00000	0.18477	0.18477	—	661.095	661.095	0.00654	0.00392	0.36310	662.791
Vendor	0.01185	0.00696	0.26549	0.10808	0.00235	0.00235	0.08401	0.08636	0.00235	0.02335	0.02571	—	219.880	219.880	0.00402	0.03346	0.08359	230.036

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.190. Building Construction (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88695	0.74119	7.75470	12.4529	0.02412	0.12786	—	0.12786	0.11763	—	0.11763	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88695	0.74119	7.75470	12.4529	0.02412	0.12786	—	0.12786	0.11763	—	0.11763	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63527	0.53087	5.55425	8.91932	0.01728	0.09158	—	0.09158	0.08425	—	0.08425	—	1,751.49	1,751.49	0.07105	0.01421	—	1,757.50
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.11594	0.09688	1.01365	1.62778	0.00315	0.01671	—	0.01671	0.01538	—	0.01538	—	289.979	289.979	0.01176	0.00235	—	290.974
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.21805	1.19601	0.82122	18.3645	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,910.29	5,910.29	0.04409	0.03307	7.08628	5,928.33
Vendor	0.09242	0.05503	1.95594	0.81624	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,853.39	1,853.39	0.03386	0.28219	1.63356	1,939.96
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.18498	1.16294	1.05822	14.5726	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,484.13	5,484.13	0.05512	0.03307	0.18372	5,495.54
Vendor	0.08713	0.05150	2.07552	0.83917	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,855.41	1,855.41	0.03386	0.28219	0.04245	1,940.39
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.84874	0.83295	0.60398	10.9783	0.00000	0.00000	4.34190	4.34190	0.00000	1.01244	1.01244	—	3,993.05	3,993.05	0.03948	0.02369	2.19312	4,003.29
Vendor	0.06493	0.03815	1.45474	0.59220	0.01289	0.01289	0.46034	0.47322	0.01289	0.12797	0.14085	—	1,328.09	1,328.09	0.02425	0.20212	0.50486	1,389.43
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15489	0.15201	0.11023	2.00354	0.00000	0.00000	0.79240	0.79240	0.00000	0.18477	0.18477	—	661.095	661.095	0.00654	0.00392	0.36310	662.791
Vendor	0.01185	0.00696	0.26549	0.10808	0.00235	0.00235	0.08401	0.08636	0.00235	0.02335	0.02571	—	219.880	219.880	0.00402	0.03346	0.08359	230.036
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.191. Building Construction (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.87266	0.72922	7.63366	12.3448	0.02412	0.12057	—	0.12057	0.11092	—	0.11092	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.87266	0.72922	7.63366	12.3448	0.02412	0.12057	—	0.12057	0.11092	—	0.11092	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62333	0.52087	5.45261	8.81772	0.01723	0.08612	—	0.08612	0.07923	—	0.07923	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11376	0.09506	0.99510	1.60923	0.00314	0.01572	—	0.01572	0.01446	—	0.01446	—	289.187	289.187	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.17396	1.15192	0.82122	17.6645	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,856.61	5,856.61	0.04409	0.03307	6.09478	5,873.67
Vendor	0.09242	0.05503	1.89492	0.79649	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,802.26	1,802.26	0.03386	0.26420	1.35572	1,883.19
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.14089	1.11885	0.84327	14.0324	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,434.05	5,434.05	0.05512	0.03307	0.15776	5,445.44
Vendor	0.08713	0.05150	2.01273	0.82118	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,804.30	1,804.30	0.03386	0.26420	0.03524	1,883.92
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.81492	0.79918	0.59446	10.4247	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	3,945.96	3,945.96	0.03937	0.02362	1.87676	3,955.86
Vendor	0.06475	0.03805	1.41877	0.57774	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,287.94	1,287.94	0.02419	0.18872	0.41895	1,345.20
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14872	0.14585	0.10849	1.90251	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	653.298	653.298	0.00652	0.00391	0.31072	654.937
Vendor	0.01182	0.00694	0.25893	0.10544	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	213.233	213.233	0.00400	0.03124	0.06936	222.713
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.192. Building Construction (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.87266	0.72922	7.63366	12.3448	0.02412	0.12057	—	0.12057	0.11092	—	0.11092	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.87266	0.72922	7.63366	12.3448	0.02412	0.12057	—	0.12057	0.11092	—	0.11092	—	2,445.39	2,445.39	0.09920	0.01984	—	2,453.78
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62333	0.52087	5.45261	8.81772	0.01723	0.08612	—	0.08612	0.07923	—	0.07923	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11376	0.09506	0.99510	1.60923	0.00314	0.01572	—	0.01572	0.01446	—	0.01446	—	289.187	289.187	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.17396	1.15192	0.82122	17.6645	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,856.61	5,856.61	0.04409	0.03307	6.09478	5,873.67
Vendor	0.09242	0.05503	1.89492	0.79649	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,802.26	1,802.26	0.03386	0.26420	1.35572	1,883.19
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.14089	1.11885	0.84327	14.0324	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,434.05	5,434.05	0.05512	0.03307	0.15776	5,445.44
Vendor	0.08713	0.05150	2.01273	0.82118	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,804.30	1,804.30	0.03386	0.26420	0.03524	1,883.92
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.81492	0.79918	0.59446	10.4247	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	3,945.96	3,945.96	0.03937	0.02362	1.87676	3,955.86
Vendor	0.06475	0.03805	1.41877	0.57774	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,287.94	1,287.94	0.02419	0.18872	0.41895	1,345.20
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14872	0.14585	0.10849	1.90251	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	653.298	653.298	0.00652	0.00391	0.31072	654.937
Vendor	0.01182	0.00694	0.25893	0.10544	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	213.233	213.233	0.00400	0.03124	0.06936	222.713
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.193. Building Construction (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86587	0.72352	7.56551	12.3083	0.02412	0.11544	—	0.11544	0.10620	—	0.10620	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.86587	0.72352	7.56551	12.3083	0.02412	0.11544	—	0.11544	0.10620	—	0.10620	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61848	0.51680	5.40393	8.79163	0.01723	0.08246	—	0.08246	0.07586	—	0.07586	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11287	0.09432	0.98622	1.60447	0.00314	0.01505	—	0.01505	0.01384	—	0.01384	—	289.186	289.186	0.01173	0.00235	—	290.178
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.10782	1.09680	0.81020	16.9646	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,809.14	5,809.14	0.04409	0.03307	5.21993	5,825.32
Vendor	0.09242	0.05503	1.85188	0.79649	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,755.90	1,755.90	0.03386	0.26420	1.11391	1,836.59
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.10782	1.08578	0.84327	13.5143	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,389.79	5,389.79	0.05512	0.03307	0.13502	5,401.16
Vendor	0.08713	0.05150	1.97323	0.82118	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,757.97	1,757.97	0.03386	0.26420	0.02881	1,837.58
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.78343	0.77555	0.59446	10.0625	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	3,913.92	3,913.92	0.03149	0.02362	1.60806	3,923.35
Vendor	0.06475	0.03805	1.38803	0.57648	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,254.84	1,254.84	0.02419	0.18872	0.34362	1,312.02
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14298	0.14154	0.10849	1.83641	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	647.994	647.994	0.00521	0.00391	0.26623	649.556
Vendor	0.01182	0.00694	0.25332	0.10521	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	207.752	207.752	0.00400	0.03124	0.05689	217.220
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.194. Building Construction (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86587	0.72352	7.56551	12.3083	0.02412	0.11544	—	0.11544	0.10620	—	0.10620	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86587	0.72352	7.56551	12.3083	0.02412	0.11544	—	0.11544	0.10620	—	0.10620	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.61848	0.51680	5.40393	8.79163	0.01723	0.08246	—	0.08246	0.07586	—	0.07586	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11287	0.09432	0.98622	1.60447	0.00314	0.01505	—	0.01505	0.01384	—	0.01384	—	289.186	289.186	0.01173	0.00235	—	290.178
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.10782	1.09680	0.81020	16.9646	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,809.14	5,809.14	0.04409	0.03307	5.21993	5,825.32
Vendor	0.09242	0.05503	1.85188	0.79649	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,755.90	1,755.90	0.03386	0.26420	1.11391	1,836.59
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.10782	1.08578	0.84327	13.5143	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,389.79	5,389.79	0.05512	0.03307	0.13502	5,401.16
Vendor	0.08713	0.05150	1.97323	0.82118	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,757.97	1,757.97	0.03386	0.26420	0.02881	1,837.58
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.78343	0.77555	0.59446	10.0625	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	3,913.92	3,913.92	0.03149	0.02362	1.60806	3,923.35
Vendor	0.06475	0.03805	1.38803	0.57648	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,254.84	1,254.84	0.02419	0.18872	0.34362	1,312.02
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14298	0.14154	0.10849	1.83641	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	647.994	647.994	0.00521	0.00391	0.26623	649.556
Vendor	0.01182	0.00694	0.25332	0.10521	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	207.752	207.752	0.00400	0.03124	0.05689	217.220

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.195. Building Construction (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85877	0.71755	7.47237	12.2496	0.02412	0.11120	—	0.11120	0.10231	—	0.10231	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85877	0.71755	7.47237	12.2496	0.02412	0.11120	—	0.11120	0.10231	—	0.10231	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61341	0.51254	5.33741	8.74970	0.01723	0.07943	—	0.07943	0.07308	—	0.07308	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.11195	0.09354	0.97408	1.59682	0.00314	0.01450	—	0.01450	0.01334	—	0.01334	—	289.186	289.186	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.06373	1.05271	0.60627	16.4796	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,767.66	5,767.66	0.04409	0.03307	4.43257	5,783.05
Vendor	0.09242	0.05679	1.82860	0.77673	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,715.12	1,715.12	0.03210	0.26420	0.90296	1,795.56
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.05271	1.03066	0.83225	12.9963	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,350.91	5,350.91	0.04409	0.03307	0.11519	5,361.98
Vendor	0.08713	0.05150	1.93019	0.80142	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,717.21	1,717.21	0.03210	0.26420	0.02338	1,796.77
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74406	0.73619	0.58659	9.70821	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	3,885.72	3,885.72	0.03149	0.02362	1.37060	3,894.92
Vendor	0.06475	0.03931	1.35855	0.56363	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,225.72	1,225.72	0.02293	0.18872	0.27747	1,282.80
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13579	0.13435	0.10705	1.77175	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	643.326	643.326	0.00521	0.00391	0.22692	644.848
Vendor	0.01182	0.00717	0.24794	0.10286	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	202.931	202.931	0.00380	0.03124	0.04594	212.383
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.196. Building Construction (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85877	0.71755	7.47237	12.2496	0.02412	0.11120	—	0.11120	0.10231	—	0.10231	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85877	0.71755	7.47237	12.2496	0.02412	0.11120	—	0.11120	0.10231	—	0.10231	—	2,445.38	2,445.38	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61341	0.51254	5.33741	8.74970	0.01723	0.07943	—	0.07943	0.07308	—	0.07308	—	1,746.70	1,746.70	0.07085	0.01417	—	1,752.70
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11195	0.09354	0.97408	1.59682	0.00314	0.01450	—	0.01450	0.01334	—	0.01334	—	289.186	289.186	0.01173	0.00235	—	290.179
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.06373	1.05271	0.60627	16.4796	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,767.66	5,767.66	0.04409	0.03307	4.43257	5,783.05
Vendor	0.09242	0.05679	1.82860	0.77673	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,715.12	1,715.12	0.03210	0.26420	0.90296	1,795.56
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.05271	1.03066	0.83225	12.9963	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,350.91	5,350.91	0.04409	0.03307	0.11519	5,361.98
Vendor	0.08713	0.05150	1.93019	0.80142	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,717.21	1,717.21	0.03210	0.26420	0.02338	1,796.77
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74406	0.73619	0.58659	9.70821	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	3,885.72	3,885.72	0.03149	0.02362	1.37060	3,894.92
Vendor	0.06475	0.03931	1.35855	0.56363	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,225.72	1,225.72	0.02293	0.18872	0.27747	1,282.80
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13579	0.13435	0.10705	1.77175	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	643.326	643.326	0.00521	0.00391	0.22692	644.848
Vendor	0.01182	0.00717	0.24794	0.10286	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	202.931	202.931	0.00380	0.03124	0.04594	212.383
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.197. Building Construction (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.85412	0.71364	7.42056	12.2336	0.02412	0.10837	—	0.10837	0.09970	—	0.09970	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.76
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85412	0.71364	7.42056	12.2336	0.02412	0.10837	—	0.10837	0.09970	—	0.09970	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.76
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61176	0.51114	5.31492	8.76225	0.01728	0.07762	—	0.07762	0.07141	—	0.07141	—	1,751.48	1,751.48	0.07105	0.01421	—	1,757.49
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11165	0.09328	0.96997	1.59911	0.00315	0.01417	—	0.01417	0.01303	—	0.01303	—	289.978	289.978	0.01176	0.00235	—	290.973
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01964	0.79366	0.59525	16.0166	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,731.37	5,731.37	0.03307	0.03307	3.79101	5,745.84
Vendor	0.09065	0.05503	1.78557	0.76051	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,678.53	1,678.53	0.03210	0.24621	0.72288	1,753.42
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01964	0.79366	0.83225	12.7152	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,317.02	5,317.02	0.04409	0.03307	0.09798	5,328.07
Vendor	0.08536	0.04974	1.90691	0.78343	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,680.64	1,680.64	0.03210	0.24621	0.01873	1,754.83
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.71452	0.56056	0.58819	9.53348	0.00000	0.00000	4.34190	4.34190	0.00000	1.01244	1.01244	—	3,871.82	3,871.82	0.03158	0.02369	1.16966	3,880.84
Vendor	0.06240	0.03815	1.33271	0.55102	0.01289	0.01289	0.46034	0.47322	0.01289	0.12797	0.14085	—	1,202.87	1,202.87	0.02299	0.17635	0.22295	1,256.22
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13040	0.10230	0.10735	1.73986	0.00000	0.00000	0.79240	0.79240	0.00000	0.18477	0.18477	—	641.024	641.024	0.00523	0.00392	0.19365	642.517
Vendor	0.01139	0.00696	0.24322	0.10056	0.00235	0.00235	0.08401	0.08636	0.00235	0.02335	0.02571	—	199.148	199.148	0.00381	0.02920	0.03691	207.981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.198. Building Construction (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85412	0.71364	7.42056	12.2336	0.02412	0.10837	—	0.10837	0.09970	—	0.09970	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.76
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.85412	0.71364	7.42056	12.2336	0.02412	0.10837	—	0.10837	0.09970	—	0.09970	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.76
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61176	0.51114	5.31492	8.76225	0.01728	0.07762	—	0.07762	0.07141	—	0.07141	—	1,751.48	1,751.48	0.07105	0.01421	—	1,757.49
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11165	0.09328	0.96997	1.59911	0.00315	0.01417	—	0.01417	0.01303	—	0.01303	—	289.978	289.978	0.01176	0.00235	—	290.973
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01964	0.79366	0.59525	16.0166	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,731.37	5,731.37	0.03307	0.03307	3.79101	5,745.84
Vendor	0.09065	0.05503	1.78557	0.76051	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,678.53	1,678.53	0.03210	0.24621	0.72288	1,753.42
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01964	0.79366	0.83225	12.7152	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,317.02	5,317.02	0.04409	0.03307	0.09798	5,328.07
Vendor	0.08536	0.04974	1.90691	0.78343	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,680.64	1,680.64	0.03210	0.24621	0.01873	1,754.83
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.71452	0.56056	0.58819	9.53348	0.00000	0.00000	4.34190	4.34190	0.00000	1.01244	1.01244	—	3,871.82	3,871.82	0.03158	0.02369	1.16966	3,880.84
Vendor	0.06240	0.03815	1.33271	0.55102	0.01289	0.01289	0.46034	0.47322	0.01289	0.12797	0.14085	—	1,202.87	1,202.87	0.02299	0.17635	0.22295	1,256.22
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13040	0.10230	0.10735	1.73986	0.00000	0.00000	0.79240	0.79240	0.00000	0.18477	0.18477	—	641.024	641.024	0.00523	0.00392	0.19365	642.517
Vendor	0.01139	0.00696	0.24322	0.10056	0.00235	0.00235	0.08401	0.08636	0.00235	0.02335	0.02571	—	199.148	199.148	0.00381	0.02920	0.03691	207.981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.199. Building Construction (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84973	0.70995	7.36647	12.1860	0.02412	0.10511	—	0.10511	0.09670	—	0.09670	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.76
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84973	0.70995	7.36647	12.1860	0.02412	0.10511	—	0.10511	0.09670	—	0.09670	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.76
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.60695	0.50711	5.26176	8.70425	0.01723	0.07508	—	0.07508	0.06907	—	0.06907	—	1,746.69	1,746.69	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11077	0.09255	0.96027	1.58853	0.00314	0.01370	—	0.01370	0.01261	—	0.01261	—	289.185	289.185	0.01173	0.00235	—	290.178
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.98657	0.76059	0.59525	15.5536	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,698.20	5,698.20	0.03307	0.03307	3.20778	5,712.09
Vendor	0.09242	0.05679	1.83001	0.80672	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,645.73	1,645.73	0.03210	0.24621	0.57625	1,720.48
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.97555	0.74957	0.82122	12.4341	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,286.05	5,286.05	0.04409	0.03307	0.08340	5,297.09
Vendor	0.08536	0.04974	1.86564	0.78343	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,647.86	1,647.86	0.03210	0.24621	0.01495	1,722.05
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69682	0.54328	0.43305	9.16887	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	3,838.83	3,838.83	0.03149	0.02362	0.99150	3,847.65
Vendor	0.06223	0.03805	1.31244	0.55078	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,176.16	1,176.16	0.02293	0.17587	0.17769	1,229.32
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12717	0.09915	0.07903	1.67332	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	635.563	635.563	0.00521	0.00391	0.16415	637.023
Vendor	0.01136	0.00694	0.23952	0.10052	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	194.727	194.727	0.00380	0.02912	0.02942	203.528

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.200. Building Construction (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84973	0.70995	7.36647	12.1860	0.02412	0.10511	—	0.10511	0.09670	—	0.09670	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.76
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84973	0.70995	7.36647	12.1860	0.02412	0.10511	—	0.10511	0.09670	—	0.09670	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.76
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60695	0.50711	5.26176	8.70425	0.01723	0.07508	—	0.07508	0.06907	—	0.06907	—	1,746.69	1,746.69	0.07085	0.01417	—	1,752.69
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.11077	0.09255	0.96027	1.58853	0.00314	0.01370	—	0.01370	0.01261	—	0.01261	—	289.185	289.185	0.01173	0.00235	—	290.178
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.98657	0.76059	0.59525	15.5536	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,698.20	5,698.20	0.03307	0.03307	3.20778	5,712.09
Vendor	0.09242	0.05679	1.83001	0.80672	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,645.73	1,645.73	0.03210	0.24621	0.57625	1,720.48
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.97555	0.74957	0.82122	12.4341	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,286.05	5,286.05	0.04409	0.03307	0.08340	5,297.09
Vendor	0.08536	0.04974	1.86564	0.78343	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,647.86	1,647.86	0.03210	0.24621	0.01495	1,722.05
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69682	0.54328	0.43305	9.16887	0.00000	0.00000	4.33003	4.33003	0.00000	1.00968	1.00968	—	3,838.83	3,838.83	0.03149	0.02362	0.99150	3,847.65
Vendor	0.06223	0.03805	1.31244	0.55078	0.01285	0.01285	0.45908	0.47193	0.01285	0.12762	0.14047	—	1,176.16	1,176.16	0.02293	0.17587	0.17769	1,229.32
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12717	0.09915	0.07903	1.67332	0.00000	0.00000	0.79023	0.79023	0.00000	0.18427	0.18427	—	635.563	635.563	0.00521	0.00391	0.16415	637.023
Vendor	0.01136	0.00694	0.23952	0.10052	0.00235	0.00235	0.08378	0.08613	0.00235	0.02329	0.02564	—	194.727	194.727	0.00380	0.02912	0.02942	203.528
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.201. Building Construction (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84556	0.70644	7.31765	12.1715	0.02413	0.10258	—	0.10258	0.09437	—	0.09437	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84556	0.70644	7.31765	12.1715	0.02413	0.10258	—	0.10258	0.09437	—	0.09437	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29454	0.24608	2.54900	4.23977	0.00840	0.03573	—	0.03573	0.03287	—	0.03287	—	851.813	851.813	0.03455	0.00691	—	854.736
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05375	0.04491	0.46519	0.77376	0.00153	0.00652	—	0.00652	0.00600	—	0.00600	—	141.027	141.027	0.00572	0.00114	—	141.511
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.95350	0.73855	0.59525	15.2946	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,670.39	5,670.39	0.03307	0.03307	2.72661	5,683.80
Vendor	0.09065	0.05503	1.74077	0.74252	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,616.60	1,616.60	0.03210	0.24621	0.46306	1,691.24
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.94248	0.71650	0.61729	12.1640	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,260.04	5,260.04	0.04409	0.03307	0.07057	5,271.06
Vendor	0.08536	0.04974	1.84412	0.76544	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,618.75	1,618.75	0.03210	0.24621	0.01204	1,692.94
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32446	0.24958	0.21119	4.37732	0.00000	0.00000	2.11163	2.11163	0.00000	0.49239	0.49239	—	1,862.82	1,862.82	0.01536	0.01152	0.41039	1,867.05
Vendor	0.03035	0.01855	0.63255	0.26233	0.00627	0.00627	0.22388	0.23015	0.00627	0.06224	0.06850	—	563.436	563.436	0.01118	0.08576	0.06981	589.343
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05921	0.04555	0.03854	0.79886	0.00000	0.00000	0.38537	0.38537	0.00000	0.08986	0.08986	—	308.411	308.411	0.00254	0.00191	0.06794	309.111
Vendor	0.00554	0.00339	0.11544	0.04788	0.00114	0.00114	0.04086	0.04200	0.00114	0.01136	0.01250	—	93.2832	93.2832	0.00185	0.01420	0.01156	97.5725
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.202. Building Construction (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.84556	0.70644	7.31765	12.1715	0.02413	0.10258	—	0.10258	0.09437	—	0.09437	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84556	0.70644	7.31765	12.1715	0.02413	0.10258	—	0.10258	0.09437	—	0.09437	—	2,445.37	2,445.37	0.09920	0.01984	—	2,453.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29454	0.24608	2.54900	4.23977	0.00840	0.03573	—	0.03573	0.03287	—	0.03287	—	851.813	851.813	0.03455	0.00691	—	854.736
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05375	0.04491	0.46519	0.77376	0.00153	0.00652	—	0.00652	0.00600	—	0.00600	—	141.027	141.027	0.00572	0.00114	—	141.511
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.95350	0.73855	0.59525	15.2946	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,670.39	5,670.39	0.03307	0.03307	2.72661	5,683.80
Vendor	0.09065	0.05503	1.74077	0.74252	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,616.60	1,616.60	0.03210	0.24621	0.46306	1,691.24
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.94248	0.71650	0.61729	12.1640	0.00000	0.00000	6.53547	6.53547	0.00000	1.53190	1.53190	—	5,260.04	5,260.04	0.04409	0.03307	0.07057	5,271.06
Vendor	0.08536	0.04974	1.84412	0.76544	0.01799	0.01799	0.68447	0.70246	0.01799	0.18911	0.20710	—	1,618.75	1,618.75	0.03210	0.24621	0.01204	1,692.94
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32446	0.24958	0.21119	4.37732	0.00000	0.00000	2.11163	2.11163	0.00000	0.49239	0.49239	—	1,862.82	1,862.82	0.01536	0.01152	0.41039	1,867.05
Vendor	0.03035	0.01855	0.63255	0.26233	0.00627	0.00627	0.22388	0.23015	0.00627	0.06224	0.06850	—	563.436	563.436	0.01118	0.08576	0.06981	589.343
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05921	0.04555	0.03854	0.79886	0.00000	0.00000	0.38537	0.38537	0.00000	0.08986	0.08986	—	308.411	308.411	0.00254	0.00191	0.06794	309.111
Vendor	0.00554	0.00339	0.11544	0.04788	0.00114	0.00114	0.04086	0.04200	0.00114	0.01136	0.01250	—	93.2832	93.2832	0.00185	0.01420	0.01156	97.5725
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.203. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51762	0.43494	4.37791	6.86330	0.00973	0.16042	—	0.16042	0.14759	—	0.14759	—	1,053.83	1,053.83	0.04275	0.00855	—	1,057.45
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51762	0.43494	4.37791	6.86330	0.00973	0.16042	—	0.16042	0.14759	—	0.14759	—	1,053.83	1,053.83	0.04275	0.00855	—	1,057.45
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36871	0.30982	3.11851	4.88893	0.00693	0.11427	—	0.11427	0.10513	—	0.10513	—	750.674	750.674	0.03045	0.00609	—	753.250
Paving	0.00444	0.00444	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06729	0.05654	0.56913	0.89223	0.00127	0.02086	—	0.02086	0.01919	—	0.01919	—	124.283	124.283	0.00504	0.00101	—	124.709
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33775	0.29983	0.27602	4.64382	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,057.70	1,057.70	0.01235	0.03792	3.16812	1,072.48
Vendor	0.01337	0.00765	0.26360	0.10515	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	239.234	239.234	0.00554	0.03379	0.53766	249.980
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29454	0.28748	0.31570	3.72140	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	981.242	981.242	0.01411	0.03792	0.08212	992.977
Vendor	0.01284	0.00713	0.27881	0.10635	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	239.408	239.408	0.00554	0.03379	0.01394	249.630
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20729	0.20227	0.22237	2.76330	0.00000	0.00000	0.69091	0.69091	0.00000	0.16111	0.16111	—	710.517	710.517	0.01005	0.02701	0.97382	719.792
Vendor	0.00927	0.00520	0.19556	0.07475	0.00128	0.00256	0.04578	0.04834	0.00256	0.01273	0.01529	—	170.465	170.465	0.00394	0.02407	0.16511	177.902
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03783	0.03691	0.04058	0.50430	0.00000	0.00000	0.12609	0.12609	0.00000	0.02940	0.02940	—	117.634	117.634	0.00166	0.00447	0.16123	119.170
Vendor	0.00169	0.00095	0.03569	0.01364	0.00023	0.00047	0.00836	0.00882	0.00047	0.00232	0.00279	—	28.2225	28.2225	0.00065	0.00399	0.02734	29.4537
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.204. Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51762	0.43494	4.37791	6.86330	0.00973	0.16042	—	0.16042	0.14759	—	0.14759	—	1,053.83	1,053.83	0.04275	0.00855	—	1,057.45
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51762	0.43494	4.37791	6.86330	0.00973	0.16042	—	0.16042	0.14759	—	0.14759	—	1,053.83	1,053.83	0.04275	0.00855	—	1,057.45
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36871	0.30982	3.11851	4.88893	0.00693	0.11427	—	0.11427	0.10513	—	0.10513	—	750.674	750.674	0.03045	0.00609	—	753.250
Paving	0.00444	0.00444	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06729	0.05654	0.56913	0.89223	0.00127	0.02086	—	0.02086	0.01919	—	0.01919	—	124.283	124.283	0.00504	0.00101	—	124.709
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33775	0.29983	0.27602	4.64382	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,057.70	1,057.70	0.01235	0.03792	3.16812	1,072.48
Vendor	0.01337	0.00765	0.26360	0.10515	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	239.234	239.234	0.00554	0.03379	0.53766	249.980
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29454	0.28748	0.31570	3.72140	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	981.242	981.242	0.01411	0.03792	0.08212	992.977
Vendor	0.01284	0.00713	0.27881	0.10635	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	239.408	239.408	0.00554	0.03379	0.01394	249.630
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20729	0.20227	0.22237	2.76330	0.00000	0.00000	0.69091	0.69091	0.00000	0.16111	0.16111	—	710.517	710.517	0.01005	0.02701	0.97382	719.792
Vendor	0.00927	0.00520	0.19556	0.07475	0.00128	0.00256	0.04578	0.04834	0.00256	0.01273	0.01529	—	170.465	170.465	0.00394	0.02407	0.16511	177.902
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03783	0.03691	0.04058	0.50430	0.00000	0.00000	0.12609	0.12609	0.00000	0.02940	0.02940	—	117.634	117.634	0.00166	0.00447	0.16123	119.170
Vendor	0.00169	0.00095	0.03569	0.01364	0.00023	0.00047	0.00836	0.00882	0.00047	0.00232	0.00279	—	28.2225	28.2225	0.00065	0.00399	0.02734	29.4537
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.205. Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51031	0.42880	4.27183	6.87170	0.00973	0.14978	—	0.14978	0.13779	—	0.13779	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51031	0.42880	4.27183	6.87170	0.00973	0.14978	—	0.14978	0.13779	—	0.13779	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36450	0.30628	3.05131	4.90836	0.00695	0.10698	—	0.10698	0.09842	—	0.09842	—	752.471	752.471	0.03052	0.00610	—	755.053
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06652	0.05590	0.55686	0.89578	0.00127	0.01952	—	0.01952	0.01796	—	0.01796	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29101	0.28748	0.24163	4.35104	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,039.23	1,039.23	0.01058	0.03792	2.83684	1,053.63
Vendor	0.01319	0.00568	0.25157	0.09923	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	232.683	232.683	0.00536	0.03379	0.48106	243.368
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28043	0.24251	0.27955	3.48154	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	964.187	964.187	0.01411	0.03792	0.07372	975.914
Vendor	0.01284	0.00533	0.26660	0.10240	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	232.862	232.862	0.00536	0.03379	0.01245	243.078
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20031	0.19653	0.19842	2.60208	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	700.082	700.082	0.00882	0.02709	0.87652	709.251
Vendor	0.00930	0.00393	0.18738	0.07188	0.00128	0.00257	0.04591	0.04848	0.00257	0.01276	0.01533	—	166.256	166.256	0.00383	0.02414	0.14792	173.693
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03656	0.03587	0.03621	0.47488	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	115.907	115.907	0.00146	0.00448	0.14512	117.425
Vendor	0.00170	0.00072	0.03420	0.01312	0.00023	0.00047	0.00838	0.00885	0.00047	0.00233	0.00280	—	27.5256	27.5256	0.00063	0.00400	0.02449	28.7568
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.206. Paving (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51031	0.42880	4.27183	6.87170	0.00973	0.14978	—	0.14978	0.13779	—	0.13779	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51031	0.42880	4.27183	6.87170	0.00973	0.14978	—	0.14978	0.13779	—	0.13779	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36450	0.30628	3.05131	4.90836	0.00695	0.10698	—	0.10698	0.09842	—	0.09842	—	752.471	752.471	0.03052	0.00610	—	755.053
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06652	0.05590	0.55686	0.89578	0.00127	0.01952	—	0.01952	0.01796	—	0.01796	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29101	0.28748	0.24163	4.35104	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,039.23	1,039.23	0.01058	0.03792	2.83684	1,053.63
Vendor	0.01319	0.00568	0.25157	0.09923	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	232.683	232.683	0.00536	0.03379	0.48106	243.368
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28043	0.24251	0.27955	3.48154	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	964.187	964.187	0.01411	0.03792	0.07372	975.914
Vendor	0.01284	0.00533	0.26660	0.10240	0.00180	0.00360	0.06845	0.07205	0.00360	0.01891	0.02251	—	232.862	232.862	0.00536	0.03379	0.01245	243.078
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20031	0.19653	0.19842	2.60208	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	700.082	700.082	0.00882	0.02709	0.87652	709.251
Vendor	0.00930	0.00393	0.18738	0.07188	0.00128	0.00257	0.04591	0.04848	0.00257	0.01276	0.01533	—	166.256	166.256	0.00383	0.02414	0.14792	173.693
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03656	0.03587	0.03621	0.47488	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	115.907	115.907	0.00146	0.00448	0.14512	117.425
Vendor	0.00170	0.00072	0.03420	0.01312	0.00023	0.00047	0.00838	0.00885	0.00047	0.00233	0.00280	—	27.5256	27.5256	0.00063	0.00400	0.02449	28.7568
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.207. Paving (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49245	0.41380	4.16459	6.86032	0.00973	0.13953	—	0.13953	0.12837	—	0.12837	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49245	0.41380	4.16459	6.86032	0.00973	0.13953	—	0.13953	0.12837	—	0.12837	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35175	0.29557	2.97471	4.90023	0.00695	0.09967	—	0.09967	0.09169	—	0.09169	—	752.471	752.471	0.03052	0.00610	—	755.053
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06419	0.05394	0.54288	0.89429	0.00127	0.01819	—	0.01819	0.01673	—	0.01673	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27866	0.24251	0.20547	4.09090	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,021.82	1,021.82	0.01058	0.03792	2.52890	1,035.91
Vendor	0.01319	0.00568	0.24134	0.09707	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	225.685	225.685	0.00536	0.03199	0.42447	235.778
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26985	0.23193	0.24515	3.27607	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	948.089	948.089	0.01235	0.03792	0.06579	959.764
Vendor	0.01266	0.00533	0.25457	0.09990	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	225.868	225.868	0.00536	0.03199	0.01101	235.547
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19149	0.16440	0.17385	2.43453	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	688.405	688.405	0.00882	0.02709	0.77987	697.477
Vendor	0.00930	0.00393	0.18007	0.07035	0.00128	0.00257	0.04591	0.04848	0.00128	0.01276	0.01405	—	161.259	161.259	0.00383	0.02285	0.13102	168.295
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03495	0.03000	0.03173	0.44430	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	113.973	113.973	0.00146	0.00448	0.12912	115.475
Vendor	0.00170	0.00072	0.03286	0.01284	0.00023	0.00047	0.00838	0.00885	0.00023	0.00233	0.00256	—	26.6982	26.6982	0.00063	0.00378	0.02169	27.8632
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.208. Paving (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49245	0.41380	4.16459	6.86032	0.00973	0.13953	—	0.13953	0.12837	—	0.12837	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49245	0.41380	4.16459	6.86032	0.00973	0.13953	—	0.13953	0.12837	—	0.12837	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35175	0.29557	2.97471	4.90023	0.00695	0.09967	—	0.09967	0.09169	—	0.09169	—	752.471	752.471	0.03052	0.00610	—	755.053
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06419	0.05394	0.54288	0.89429	0.00127	0.01819	—	0.01819	0.01673	—	0.01673	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27866	0.24251	0.20547	4.09090	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,021.82	1,021.82	0.01058	0.03792	2.52890	1,035.91
Vendor	0.01319	0.00568	0.24134	0.09707	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	225.685	225.685	0.00536	0.03199	0.42447	235.778
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26985	0.23193	0.24515	3.27607	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	948.089	948.089	0.01235	0.03792	0.06579	959.764
Vendor	0.01266	0.00533	0.25457	0.09990	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	225.868	225.868	0.00536	0.03199	0.01101	235.547
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19149	0.16440	0.17385	2.43453	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	688.405	688.405	0.00882	0.02709	0.77987	697.477
Vendor	0.00930	0.00393	0.18007	0.07035	0.00128	0.00257	0.04591	0.04848	0.00128	0.01276	0.01405	—	161.259	161.259	0.00383	0.02285	0.13102	168.295
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03495	0.03000	0.03173	0.44430	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	113.973	113.973	0.00146	0.00448	0.12912	115.475
Vendor	0.00170	0.00072	0.03286	0.01284	0.00023	0.00047	0.00838	0.00885	0.00023	0.00233	0.00256	—	26.6982	26.6982	0.00063	0.00378	0.02169	27.8632
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.209. Paving (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48059	0.40383	4.04246	6.85348	0.00973	0.13314	—	0.13314	0.12249	—	0.12249	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48059	0.40383	4.04246	6.85348	0.00973	0.13314	—	0.13314	0.12249	—	0.12249	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34328	0.28845	2.88747	4.89534	0.00695	0.09510	—	0.09510	0.08750	—	0.08750	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06265	0.05264	0.52696	0.89340	0.00127	0.01736	—	0.01736	0.01597	—	0.01597	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26808	0.23193	0.20371	3.83252	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,005.73	1,005.73	0.01058	0.00529	2.24428	1,009.81
Vendor	0.01139	0.00568	0.23111	0.09330	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	218.314	218.314	0.00536	0.03182	0.37044	228.300
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25926	0.22134	0.24339	3.07060	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	933.216	933.216	0.01235	0.03792	0.05832	944.883
Vendor	0.01086	0.00533	0.24434	0.09595	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	218.501	218.501	0.00536	0.03199	0.00960	228.179
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18393	0.15684	0.17133	2.29155	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	677.600	677.600	0.00756	0.02709	0.69321	686.553
Vendor	0.00801	0.00393	0.17277	0.06752	0.00128	0.00257	0.04591	0.04848	0.00128	0.01276	0.01405	—	155.995	155.995	0.00383	0.02285	0.11411	163.015
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03357	0.02862	0.03127	0.41821	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	112.184	112.184	0.00125	0.00448	0.11477	113.667
Vendor	0.00146	0.00072	0.03153	0.01232	0.00023	0.00047	0.00838	0.00885	0.00023	0.00233	0.00256	—	25.8267	25.8267	0.00063	0.00378	0.01889	26.9889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.210. Paving (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48059	0.40383	4.04246	6.85348	0.00973	0.13314	—	0.13314	0.12249	—	0.12249	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48059	0.40383	4.04246	6.85348	0.00973	0.13314	—	0.13314	0.12249	—	0.12249	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34328	0.28845	2.88747	4.89534	0.00695	0.09510	—	0.09510	0.08750	—	0.08750	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06265	0.05264	0.52696	0.89340	0.00127	0.01736	—	0.01736	0.01597	—	0.01597	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26808	0.23193	0.20371	3.83252	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,005.73	1,005.73	0.01058	0.00529	2.24428	1,009.81
Vendor	0.01139	0.00568	0.23111	0.09330	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	218.314	218.314	0.00536	0.03182	0.37044	228.300
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25926	0.22134	0.24339	3.07060	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	933.216	933.216	0.01235	0.03792	0.05832	944.883
Vendor	0.01086	0.00533	0.24434	0.09595	0.00180	0.00360	0.06845	0.07205	0.00180	0.01891	0.02071	—	218.501	218.501	0.00536	0.03199	0.00960	228.179
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18393	0.15684	0.17133	2.29155	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	677.600	677.600	0.00756	0.02709	0.69321	686.553
Vendor	0.00801	0.00393	0.17277	0.06752	0.00128	0.00257	0.04591	0.04848	0.00128	0.01276	0.01405	—	155.995	155.995	0.00383	0.02285	0.11411	163.015
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03357	0.02862	0.03127	0.41821	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	112.184	112.184	0.00125	0.00448	0.11477	113.667
Vendor	0.00146	0.00072	0.03153	0.01232	0.00023	0.00047	0.00838	0.00885	0.00023	0.00233	0.00256	—	25.8267	25.8267	0.00063	0.00378	0.01889	26.9889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.211. Paving (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46816	0.39339	3.96392	6.83822	0.00973	0.12676	—	0.12676	0.11662	—	0.11662	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46816	0.39339	3.96392	6.83822	0.00973	0.12676	—	0.12676	0.11662	—	0.11662	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33532	0.28176	2.83913	4.89783	0.00697	0.09079	—	0.09079	0.08352	—	0.08352	—	754.534	754.534	0.03061	0.00612	—	757.124
Paving	0.00447	0.00447	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06120	0.05142	0.51814	0.89385	0.00127	0.01657	—	0.01657	0.01524	—	0.01524	—	124.922	124.922	0.00507	0.00101	—	125.350
Paving	0.00082	0.00082	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25574	0.21958	0.16932	3.61029	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	991.154	991.154	0.00882	0.00529	1.97833	994.930
Vendor	0.01139	0.00568	0.22268	0.09115	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	211.067	211.067	0.00536	0.03002	0.31899	220.465
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24868	0.21076	0.20723	2.90481	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	919.732	919.732	0.01058	0.03792	0.05132	931.348
Vendor	0.01086	0.00533	0.23626	0.09199	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	211.258	211.258	0.00536	0.03019	0.00826	220.398
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17812	0.15096	0.14717	2.15824	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	669.640	669.640	0.00758	0.00379	0.61157	671.570
Vendor	0.00803	0.00394	0.16604	0.06617	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	151.233	151.233	0.00384	0.02150	0.09839	157.834
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03251	0.02755	0.02686	0.39388	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	110.867	110.867	0.00125	0.00063	0.10125	111.186
Vendor	0.00147	0.00072	0.03030	0.01208	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	25.0383	25.0383	0.00064	0.00356	0.01629	26.1312
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.212. Paving (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46816	0.39339	3.96392	6.83822	0.00973	0.12676	—	0.12676	0.11662	—	0.11662	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46816	0.39339	3.96392	6.83822	0.00973	0.12676	—	0.12676	0.11662	—	0.11662	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33532	0.28176	2.83913	4.89783	0.00697	0.09079	—	0.09079	0.08352	—	0.08352	—	754.534	754.534	0.03061	0.00612	—	757.124
Paving	0.00447	0.00447	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06120	0.05142	0.51814	0.89385	0.00127	0.01657	—	0.01657	0.01524	—	0.01524	—	124.922	124.922	0.00507	0.00101	—	125.350
Paving	0.00082	0.00082	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25574	0.21958	0.16932	3.61029	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	991.154	991.154	0.00882	0.00529	1.97833	994.930
Vendor	0.01139	0.00568	0.22268	0.09115	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	211.067	211.067	0.00536	0.03002	0.31899	220.465
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24868	0.21076	0.20723	2.90481	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	919.732	919.732	0.01058	0.03792	0.05132	931.348
Vendor	0.01086	0.00533	0.23626	0.09199	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	211.258	211.258	0.00536	0.03019	0.00826	220.398
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17812	0.15096	0.14717	2.15824	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	669.640	669.640	0.00758	0.00379	0.61157	671.570
Vendor	0.00803	0.00394	0.16604	0.06617	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	151.233	151.233	0.00384	0.02150	0.09839	157.834
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03251	0.02755	0.02686	0.39388	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	110.867	110.867	0.00125	0.00063	0.10125	111.186
Vendor	0.00147	0.00072	0.03030	0.01208	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	25.0383	25.0383	0.00064	0.00356	0.01629	26.1312
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.213. Paving (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45479	0.38215	3.91731	6.82642	0.00973	0.11841	—	0.11841	0.10894	—	0.10894	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45479	0.38215	3.91731	6.82642	0.00973	0.11841	—	0.11841	0.10894	—	0.10894	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32485	0.27296	2.79808	4.87601	0.00695	0.08458	—	0.08458	0.07781	—	0.07781	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05929	0.04982	0.51065	0.88987	0.00127	0.01544	—	0.01544	0.01420	—	0.01420	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21429	0.21076	0.16755	3.42422	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	978.132	978.132	0.00882	0.00529	1.74037	981.670
Vendor	0.01122	0.00550	0.21461	0.08737	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	204.085	204.085	0.00536	0.03002	0.27269	213.437
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20900	0.20371	0.20547	2.74079	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	907.640	907.640	0.01058	0.00529	0.04507	909.527
Vendor	0.01086	0.00533	0.22621	0.09002	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	204.279	204.279	0.00536	0.03002	0.00707	213.366
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14676	0.14425	0.12220	2.03770	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	659.039	659.039	0.00756	0.00378	0.53657	660.890
Vendor	0.00789	0.00393	0.15969	0.06329	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	145.833	145.833	0.00383	0.02144	0.08397	152.403
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02678	0.02632	0.02230	0.37188	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	109.111	109.111	0.00125	0.00063	0.08884	109.418
Vendor	0.00144	0.00072	0.02914	0.01155	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	24.1444	24.1444	0.00063	0.00355	0.01390	25.2320
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.214. Paving (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45479	0.38215	3.91731	6.82642	0.00973	0.11841	—	0.11841	0.10894	—	0.10894	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45479	0.38215	3.91731	6.82642	0.00973	0.11841	—	0.11841	0.10894	—	0.10894	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32485	0.27296	2.79808	4.87601	0.00695	0.08458	—	0.08458	0.07781	—	0.07781	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05929	0.04982	0.51065	0.88987	0.00127	0.01544	—	0.01544	0.01420	—	0.01420	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21429	0.21076	0.16755	3.42422	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	978.132	978.132	0.00882	0.00529	1.74037	981.670
Vendor	0.01122	0.00550	0.21461	0.08737	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	204.085	204.085	0.00536	0.03002	0.27269	213.437
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20900	0.20371	0.20547	2.74079	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	907.640	907.640	0.01058	0.00529	0.04507	909.527
Vendor	0.01086	0.00533	0.22621	0.09002	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	204.279	204.279	0.00536	0.03002	0.00707	213.366
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14676	0.14425	0.12220	2.03770	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	659.039	659.039	0.00756	0.00378	0.53657	660.890
Vendor	0.00789	0.00393	0.15969	0.06329	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	145.833	145.833	0.00383	0.02144	0.08397	152.403
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02678	0.02632	0.02230	0.37188	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	109.111	109.111	0.00125	0.00063	0.08884	109.418
Vendor	0.00144	0.00072	0.02914	0.01155	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	24.1444	24.1444	0.00063	0.00355	0.01390	25.2320
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.215. Paving (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44773	0.37622	3.88782	6.82006	0.00973	0.11546	—	0.11546	0.10622	—	0.10622	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44773	0.37622	3.88782	6.82006	0.00973	0.11546	—	0.11546	0.10622	—	0.10622	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31981	0.26873	2.77701	4.87147	0.00695	0.08247	—	0.08247	0.07587	—	0.07587	—	752.478	752.478	0.03052	0.00610	—	755.060
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05836	0.04904	0.50680	0.88904	0.00127	0.01505	—	0.01505	0.01385	—	0.01385	—	124.581	124.581	0.00505	0.00101	—	125.009
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20371	0.20018	0.13316	3.23815	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	966.036	966.036	0.00882	0.00529	1.51641	969.349
Vendor	0.01104	0.00550	0.20815	0.08540	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	197.413	197.413	0.00519	0.02822	0.23153	206.183
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19842	0.19312	0.17108	2.57853	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	896.409	896.409	0.01058	0.00529	0.03929	898.290
Vendor	0.01086	0.00515	0.21993	0.08804	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	197.610	197.610	0.00519	0.02822	0.00602	206.155
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14173	0.13921	0.12094	1.92432	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	650.903	650.903	0.00630	0.00378	0.46659	652.654
Vendor	0.00789	0.00380	0.15521	0.06175	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	141.068	141.068	0.00370	0.02016	0.07148	147.239
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02586	0.02541	0.02207	0.35119	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	107.764	107.764	0.00104	0.00063	0.07725	108.054
Vendor	0.00144	0.00069	0.02832	0.01127	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	23.3555	23.3555	0.00061	0.00334	0.01183	24.3771
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.216. Paving (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44773	0.37622	3.88782	6.82006	0.00973	0.11546	—	0.11546	0.10622	—	0.10622	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44773	0.37622	3.88782	6.82006	0.00973	0.11546	—	0.11546	0.10622	—	0.10622	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31981	0.26873	2.77701	4.87147	0.00695	0.08247	—	0.08247	0.07587	—	0.07587	—	752.478	752.478	0.03052	0.00610	—	755.060
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05836	0.04904	0.50680	0.88904	0.00127	0.01505	—	0.01505	0.01385	—	0.01385	—	124.581	124.581	0.00505	0.00101	—	125.009
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20371	0.20018	0.13316	3.23815	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	966.036	966.036	0.00882	0.00529	1.51641	969.349
Vendor	0.01104	0.00550	0.20815	0.08540	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	197.413	197.413	0.00519	0.02822	0.23153	206.183
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19842	0.19312	0.17108	2.57853	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	896.409	896.409	0.01058	0.00529	0.03929	898.290
Vendor	0.01086	0.00515	0.21993	0.08804	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	197.610	197.610	0.00519	0.02822	0.00602	206.155
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14173	0.13921	0.12094	1.92432	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	650.903	650.903	0.00630	0.00378	0.46659	652.654
Vendor	0.00789	0.00380	0.15521	0.06175	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	141.068	141.068	0.00370	0.02016	0.07148	147.239
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02586	0.02541	0.02207	0.35119	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	107.764	107.764	0.00104	0.00063	0.07725	108.054
Vendor	0.00144	0.00069	0.02832	0.01127	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	23.3555	23.3555	0.00061	0.00334	0.01183	24.3771
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.217. Paving (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42830	0.35989	3.81081	6.80771	0.00973	0.09903	—	0.09903	0.09111	—	0.09111	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42830	0.35989	3.81081	6.80771	0.00973	0.09903	—	0.09903	0.09111	—	0.09111	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30593	0.25706	2.72201	4.86265	0.00695	0.07074	—	0.07074	0.06508	—	0.06508	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05583	0.04691	0.49677	0.88743	0.00127	0.01291	—	0.01291	0.01188	—	0.01188	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20018	0.19665	0.13316	3.08824	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	955.231	955.231	0.00705	0.00529	1.31577	958.300
Vendor	0.01104	0.00550	0.20007	0.08342	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	191.113	191.113	0.00519	0.02822	0.19526	199.847
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19489	0.18960	0.17108	2.45419	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	886.374	886.374	0.00882	0.00529	0.03406	888.205
Vendor	0.01086	0.00515	0.21365	0.08589	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	191.312	191.312	0.00519	0.02822	0.00507	199.857
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13921	0.13669	0.11968	1.83803	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	643.623	643.623	0.00630	0.00378	0.40660	645.313
Vendor	0.00776	0.00380	0.14944	0.06034	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	136.569	136.569	0.00370	0.02016	0.06027	142.729
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02541	0.02495	0.02184	0.33544	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	106.559	106.559	0.00104	0.00063	0.06732	106.839
Vendor	0.00142	0.00069	0.02727	0.01101	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	22.6106	22.6106	0.00061	0.00334	0.00998	23.6303
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.218. Paving (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42830	0.35989	3.81081	6.80771	0.00973	0.09903	—	0.09903	0.09111	—	0.09111	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42830	0.35989	3.81081	6.80771	0.00973	0.09903	—	0.09903	0.09111	—	0.09111	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30593	0.25706	2.72201	4.86265	0.00695	0.07074	—	0.07074	0.06508	—	0.06508	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05583	0.04691	0.49677	0.88743	0.00127	0.01291	—	0.01291	0.01188	—	0.01188	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20018	0.19665	0.13316	3.08824	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	955.231	955.231	0.00705	0.00529	1.31577	958.300
Vendor	0.01104	0.00550	0.20007	0.08342	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	191.113	191.113	0.00519	0.02822	0.19526	199.847
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19489	0.18960	0.17108	2.45419	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	886.374	886.374	0.00882	0.00529	0.03406	888.205
Vendor	0.01086	0.00515	0.21365	0.08589	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	191.312	191.312	0.00519	0.02822	0.00507	199.857
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13921	0.13669	0.11968	1.83803	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	643.623	643.623	0.00630	0.00378	0.40660	645.313
Vendor	0.00776	0.00380	0.14944	0.06034	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	136.569	136.569	0.00370	0.02016	0.06027	142.729
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02541	0.02495	0.02184	0.33544	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	106.559	106.559	0.00104	0.00063	0.06732	106.839
Vendor	0.00142	0.00069	0.02727	0.01101	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	22.6106	22.6106	0.00061	0.00334	0.00998	23.6303
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.219. Paving (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41808	0.35130	3.75158	6.79944	0.00973	0.09170	—	0.09170	0.08437	—	0.08437	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41808	0.35130	3.75158	6.79944	0.00973	0.09170	—	0.09170	0.08437	—	0.08437	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29945	0.25162	2.68704	4.87005	0.00697	0.06568	—	0.06568	0.06043	—	0.06043	—	754.534	754.534	0.03061	0.00612	—	757.124
Paving	0.00447	0.00447	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05465	0.04592	0.49038	0.88878	0.00127	0.01199	—	0.01199	0.01103	—	0.01103	—	124.922	124.922	0.00507	0.00101	—	125.350
Paving	0.00082	0.00082	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19489	0.19136	0.13140	2.93832	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	945.646	945.646	0.00705	0.00529	1.13380	948.533
Vendor	0.00924	0.00550	0.19559	0.08162	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	185.339	185.339	0.00339	0.02822	0.16336	193.996
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18960	0.18607	0.16932	2.33161	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	877.460	877.460	0.00882	0.00529	0.02939	879.287
Vendor	0.00871	0.00515	0.20755	0.08392	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	185.541	185.541	0.00339	0.02822	0.00424	194.039
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13580	0.13327	0.09664	1.75653	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	638.888	638.888	0.00632	0.00379	0.35090	640.527
Vendor	0.00649	0.00381	0.14547	0.05922	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	132.809	132.809	0.00243	0.02021	0.05049	138.943
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02478	0.02432	0.01764	0.32057	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	105.775	105.775	0.00105	0.00063	0.05810	106.046
Vendor	0.00118	0.00070	0.02655	0.01081	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	21.9880	21.9880	0.00040	0.00335	0.00836	23.0036
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.220. Paving (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41808	0.35130	3.75158	6.79944	0.00973	0.09170	—	0.09170	0.08437	—	0.08437	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41808	0.35130	3.75158	6.79944	0.00973	0.09170	—	0.09170	0.08437	—	0.08437	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29945	0.25162	2.68704	4.87005	0.00697	0.06568	—	0.06568	0.06043	—	0.06043	—	754.534	754.534	0.03061	0.00612	—	757.124
Paving	0.00447	0.00447	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05465	0.04592	0.49038	0.88878	0.00127	0.01199	—	0.01199	0.01103	—	0.01103	—	124.922	124.922	0.00507	0.00101	—	125.350
Paving	0.00082	0.00082	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19489	0.19136	0.13140	2.93832	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	945.646	945.646	0.00705	0.00529	1.13380	948.533
Vendor	0.00924	0.00550	0.19559	0.08162	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	185.339	185.339	0.00339	0.02822	0.16336	193.996
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18960	0.18607	0.16932	2.33161	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	877.460	877.460	0.00882	0.00529	0.02939	879.287
Vendor	0.00871	0.00515	0.20755	0.08392	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	185.541	185.541	0.00339	0.02822	0.00424	194.039
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13580	0.13327	0.09664	1.75653	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	638.888	638.888	0.00632	0.00379	0.35090	640.527
Vendor	0.00649	0.00381	0.14547	0.05922	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	132.809	132.809	0.00243	0.02021	0.05049	138.943
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02478	0.02432	0.01764	0.32057	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	105.775	105.775	0.00105	0.00063	0.05810	106.046
Vendor	0.00118	0.00070	0.02655	0.01081	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	21.9880	21.9880	0.00040	0.00335	0.00836	23.0036
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.221. Paving (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40606	0.34120	3.67939	6.79223	0.00973	0.08315	—	0.08315	0.07650	—	0.07650	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40606	0.34120	3.67939	6.79223	0.00973	0.08315	—	0.08315	0.07650	—	0.07650	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29004	0.24372	2.62814	4.85159	0.00695	0.05939	—	0.05939	0.05464	—	0.05464	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05293	0.04448	0.47963	0.88542	0.00127	0.01084	—	0.01084	0.00997	—	0.00997	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18783	0.18431	0.13140	2.82633	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	937.058	937.058	0.00705	0.00529	0.97517	939.786
Vendor	0.00924	0.00550	0.18949	0.07965	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	180.226	180.226	0.00339	0.02642	0.13557	188.319
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18254	0.17902	0.13492	2.24519	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	869.449	869.449	0.00882	0.00529	0.02524	871.271
Vendor	0.00871	0.00515	0.20127	0.08212	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	180.430	180.430	0.00339	0.02642	0.00352	188.392
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13039	0.12787	0.09511	1.66795	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	631.353	631.353	0.00630	0.00378	0.30028	632.937
Vendor	0.00648	0.00380	0.14188	0.05777	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	128.794	128.794	0.00242	0.01887	0.04190	134.520
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02380	0.02334	0.01736	0.30440	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	104.528	104.528	0.00104	0.00063	0.04972	104.790
Vendor	0.00118	0.00069	0.02589	0.01054	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	21.3233	21.3233	0.00040	0.00312	0.00694	22.2713
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.222. Paving (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40606	0.34120	3.67939	6.79223	0.00973	0.08315	—	0.08315	0.07650	—	0.07650	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40606	0.34120	3.67939	6.79223	0.00973	0.08315	—	0.08315	0.07650	—	0.07650	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29004	0.24372	2.62814	4.85159	0.00695	0.05939	—	0.05939	0.05464	—	0.05464	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05293	0.04448	0.47963	0.88542	0.00127	0.01084	—	0.01084	0.00997	—	0.00997	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18783	0.18431	0.13140	2.82633	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	937.058	937.058	0.00705	0.00529	0.97517	939.786
Vendor	0.00924	0.00550	0.18949	0.07965	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	180.226	180.226	0.00339	0.02642	0.13557	188.319
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18254	0.17902	0.13492	2.24519	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	869.449	869.449	0.00882	0.00529	0.02524	871.271
Vendor	0.00871	0.00515	0.20127	0.08212	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	180.430	180.430	0.00339	0.02642	0.00352	188.392
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13039	0.12787	0.09511	1.66795	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	631.353	631.353	0.00630	0.00378	0.30028	632.937
Vendor	0.00648	0.00380	0.14188	0.05777	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	128.794	128.794	0.00242	0.01887	0.04190	134.520
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02380	0.02334	0.01736	0.30440	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	104.528	104.528	0.00104	0.00063	0.04972	104.790
Vendor	0.00118	0.00069	0.02589	0.01054	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	21.3233	21.3233	0.00040	0.00312	0.00694	22.2713
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.223. Paving (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39387	0.33096	3.59249	6.78389	0.00973	0.07638	—	0.07638	0.07027	—	0.07027	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39387	0.33096	3.59249	6.78389	0.00973	0.07638	—	0.07638	0.07027	—	0.07027	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28133	0.23640	2.56606	4.84564	0.00695	0.05456	—	0.05456	0.05019	—	0.05019	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05134	0.04314	0.46831	0.88433	0.00127	0.00996	—	0.00996	0.00916	—	0.00916	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17725	0.17549	0.12963	2.71433	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	929.463	929.463	0.00705	0.00529	0.83519	932.051
Vendor	0.00924	0.00550	0.18519	0.07965	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	175.590	175.590	0.00339	0.02642	0.11139	183.659
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17725	0.17372	0.13492	2.16229	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	862.366	862.366	0.00882	0.00529	0.02160	864.185
Vendor	0.00871	0.00515	0.19732	0.08212	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	175.797	175.797	0.00339	0.02642	0.00288	183.758
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12535	0.12409	0.09511	1.61000	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	626.227	626.227	0.00504	0.00378	0.25729	627.736
Vendor	0.00648	0.00380	0.13880	0.05765	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	125.484	125.484	0.00242	0.01887	0.03436	131.202
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02288	0.02265	0.01736	0.29383	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	103.679	103.679	0.00083	0.00063	0.04260	103.929
Vendor	0.00118	0.00069	0.02533	0.01052	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	20.7752	20.7752	0.00040	0.00312	0.00569	21.7220
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.224. Paving (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39387	0.33096	3.59249	6.78389	0.00973	0.07638	—	0.07638	0.07027	—	0.07027	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39387	0.33096	3.59249	6.78389	0.00973	0.07638	—	0.07638	0.07027	—	0.07027	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28133	0.23640	2.56606	4.84564	0.00695	0.05456	—	0.05456	0.05019	—	0.05019	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05134	0.04314	0.46831	0.88433	0.00127	0.00996	—	0.00996	0.00916	—	0.00916	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17725	0.17549	0.12963	2.71433	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	929.463	929.463	0.00705	0.00529	0.83519	932.051
Vendor	0.00924	0.00550	0.18519	0.07965	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	175.590	175.590	0.00339	0.02642	0.11139	183.659
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17725	0.17372	0.13492	2.16229	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	862.366	862.366	0.00882	0.00529	0.02160	864.185
Vendor	0.00871	0.00515	0.19732	0.08212	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	175.797	175.797	0.00339	0.02642	0.00288	183.758
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12535	0.12409	0.09511	1.61000	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	626.227	626.227	0.00504	0.00378	0.25729	627.736
Vendor	0.00648	0.00380	0.13880	0.05765	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	125.484	125.484	0.00242	0.01887	0.03436	131.202
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02288	0.02265	0.01736	0.29383	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	103.679	103.679	0.00083	0.00063	0.04260	103.929
Vendor	0.00118	0.00069	0.02533	0.01052	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	20.7752	20.7752	0.00040	0.00312	0.00569	21.7220
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.225. Paving (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38783	0.32588	3.54237	6.78072	0.00973	0.07478	—	0.07478	0.06880	—	0.06880	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38783	0.32588	3.54237	6.78072	0.00973	0.07478	—	0.07478	0.06880	—	0.06880	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27702	0.23277	2.53027	4.84337	0.00695	0.05341	—	0.05341	0.04914	—	0.04914	—	752.478	752.478	0.03052	0.00610	—	755.060
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05056	0.04248	0.46177	0.88392	0.00127	0.00975	—	0.00975	0.00897	—	0.00897	—	124.581	124.581	0.00505	0.00101	—	125.009
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17020	0.16843	0.09700	2.63673	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	922.826	922.826	0.00705	0.00529	0.70921	925.288
Vendor	0.00924	0.00568	0.18286	0.07767	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	171.512	171.512	0.00321	0.02642	0.09030	179.556
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16843	0.16491	0.13316	2.07940	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	856.145	856.145	0.00705	0.00529	0.01843	857.917
Vendor	0.00871	0.00515	0.19302	0.08014	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	171.721	171.721	0.00321	0.02642	0.00234	179.677
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11905	0.11779	0.09385	1.55331	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	621.716	621.716	0.00504	0.00378	0.21930	623.187
Vendor	0.00648	0.00393	0.13586	0.05636	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	122.572	122.572	0.00229	0.01887	0.02775	128.280
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02173	0.02150	0.01713	0.28348	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	102.932	102.932	0.00083	0.00063	0.03631	103.176
Vendor	0.00118	0.00072	0.02479	0.01029	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	20.2931	20.2931	0.00038	0.00312	0.00459	21.2383
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.226. Paving (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38783	0.32588	3.54237	6.78072	0.00973	0.07478	—	0.07478	0.06880	—	0.06880	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38783	0.32588	3.54237	6.78072	0.00973	0.07478	—	0.07478	0.06880	—	0.06880	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27702	0.23277	2.53027	4.84337	0.00695	0.05341	—	0.05341	0.04914	—	0.04914	—	752.478	752.478	0.03052	0.00610	—	755.060
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05056	0.04248	0.46177	0.88392	0.00127	0.00975	—	0.00975	0.00897	—	0.00897	—	124.581	124.581	0.00505	0.00101	—	125.009
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17020	0.16843	0.09700	2.63673	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	922.826	922.826	0.00705	0.00529	0.70921	925.288
Vendor	0.00924	0.00568	0.18286	0.07767	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	171.512	171.512	0.00321	0.02642	0.09030	179.556
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16843	0.16491	0.13316	2.07940	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	856.145	856.145	0.00705	0.00529	0.01843	857.917
Vendor	0.00871	0.00515	0.19302	0.08014	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	171.721	171.721	0.00321	0.02642	0.00234	179.677
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11905	0.11779	0.09385	1.55331	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	621.716	621.716	0.00504	0.00378	0.21930	623.187
Vendor	0.00648	0.00393	0.13586	0.05636	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	122.572	122.572	0.00229	0.01887	0.02775	128.280
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02173	0.02150	0.01713	0.28348	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	102.932	102.932	0.00083	0.00063	0.03631	103.176
Vendor	0.00118	0.00072	0.02479	0.01029	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	20.2931	20.2931	0.00038	0.00312	0.00459	21.2383
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.227. Paving (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38487	0.32339	3.52386	6.77784	0.00973	0.07258	—	0.07258	0.06678	—	0.06678	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38487	0.32339	3.52386	6.77784	0.00973	0.07258	—	0.07258	0.06678	—	0.06678	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27566	0.23163	2.52394	4.85458	0.00697	0.05199	—	0.05199	0.04783	—	0.04783	—	754.540	754.540	0.03061	0.00612	—	757.129
Paving	0.00447	0.00447	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05031	0.04227	0.46062	0.88596	0.00127	0.00949	—	0.00949	0.00873	—	0.00873	—	124.923	124.923	0.00507	0.00101	—	125.351
Paving	0.00082	0.00082	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16314	0.12699	0.09524	2.56265	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	917.019	917.019	0.00529	0.00529	0.60656	919.335
Vendor	0.00907	0.00550	0.17856	0.07605	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	167.853	167.853	0.00321	0.02462	0.07229	175.342
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16314	0.12699	0.13316	2.03443	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	850.722	850.722	0.00705	0.00529	0.01568	852.491
Vendor	0.00854	0.00497	0.19069	0.07834	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	168.064	168.064	0.00321	0.02462	0.00187	175.483
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11432	0.08969	0.09411	1.52536	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	619.491	619.491	0.00505	0.00379	0.18715	620.934
Vendor	0.00624	0.00381	0.13327	0.05510	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	120.287	120.287	0.00230	0.01763	0.02229	125.622
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02086	0.01637	0.01718	0.27838	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	102.564	102.564	0.00084	0.00063	0.03098	102.803
Vendor	0.00114	0.00070	0.02432	0.01006	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	19.9148	19.9148	0.00038	0.00292	0.00369	20.7981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.228. Paving (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38487	0.32339	3.52386	6.77784	0.00973	0.07258	—	0.07258	0.06678	—	0.06678	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38487	0.32339	3.52386	6.77784	0.00973	0.07258	—	0.07258	0.06678	—	0.06678	—	1,053.47	1,053.47	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27566	0.23163	2.52394	4.85458	0.00697	0.05199	—	0.05199	0.04783	—	0.04783	—	754.540	754.540	0.03061	0.00612	—	757.129
Paving	0.00447	0.00447	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05031	0.04227	0.46062	0.88596	0.00127	0.00949	—	0.00949	0.00873	—	0.00873	—	124.923	124.923	0.00507	0.00101	—	125.351
Paving	0.00082	0.00082	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16314	0.12699	0.09524	2.56265	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	917.019	917.019	0.00529	0.00529	0.60656	919.335
Vendor	0.00907	0.00550	0.17856	0.07605	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	167.853	167.853	0.00321	0.02462	0.07229	175.342
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16314	0.12699	0.13316	2.03443	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	850.722	850.722	0.00705	0.00529	0.01568	852.491
Vendor	0.00854	0.00497	0.19069	0.07834	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	168.064	168.064	0.00321	0.02462	0.00187	175.483
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11432	0.08969	0.09411	1.52536	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	619.491	619.491	0.00505	0.00379	0.18715	620.934
Vendor	0.00624	0.00381	0.13327	0.05510	0.00129	0.00129	0.04603	0.04732	0.00129	0.01280	0.01409	—	120.287	120.287	0.00230	0.01763	0.02229	125.622
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02086	0.01637	0.01718	0.27838	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	102.564	102.564	0.00084	0.00063	0.03098	102.803
Vendor	0.00114	0.00070	0.02432	0.01006	0.00024	0.00024	0.00840	0.00864	0.00024	0.00234	0.00257	—	19.9148	19.9148	0.00038	0.00292	0.00369	20.7981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.229. Paving (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38075	0.31994	3.48338	6.77345	0.00973	0.06922	—	0.06922	0.06368	—	0.06368	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38075	0.31994	3.48338	6.77345	0.00973	0.06922	—	0.06922	0.06368	—	0.06368	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27197	0.22853	2.48813	4.83818	0.00695	0.04944	—	0.04944	0.04549	—	0.04549	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04963	0.04171	0.45408	0.88297	0.00127	0.00902	—	0.00902	0.00830	—	0.00830	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15785	0.12170	0.09524	2.48858	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	911.712	911.712	0.00529	0.00529	0.51324	913.934
Vendor	0.00924	0.00568	0.18300	0.08067	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	164.573	164.573	0.00321	0.02462	0.05762	172.048
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15609	0.11993	0.13140	1.98945	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	845.767	845.767	0.00705	0.00529	0.01334	847.534
Vendor	0.00854	0.00497	0.18656	0.07834	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	164.786	164.786	0.00321	0.02462	0.00149	172.205
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11149	0.08693	0.06929	1.46702	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	614.214	614.214	0.00504	0.00378	0.15864	615.624
Vendor	0.00622	0.00380	0.13124	0.05508	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	117.616	117.616	0.00229	0.01759	0.01777	122.932
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02035	0.01586	0.01265	0.26773	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	101.690	101.690	0.00083	0.00063	0.02626	101.924
Vendor	0.00114	0.00069	0.02395	0.01005	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	19.4727	19.4727	0.00038	0.00291	0.00294	20.3528
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.230. Paving (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38075	0.31994	3.48338	6.77345	0.00973	0.06922	—	0.06922	0.06368	—	0.06368	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38075	0.31994	3.48338	6.77345	0.00973	0.06922	—	0.06922	0.06368	—	0.06368	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.08
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27197	0.22853	2.48813	4.83818	0.00695	0.04944	—	0.04944	0.04549	—	0.04549	—	752.473	752.473	0.03052	0.00610	—	755.055
Paving	0.00446	0.00446	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04963	0.04171	0.45408	0.88297	0.00127	0.00902	—	0.00902	0.00830	—	0.00830	—	124.580	124.580	0.00505	0.00101	—	125.008
Paving	0.00081	0.00081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15785	0.12170	0.09524	2.48858	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	911.712	911.712	0.00529	0.00529	0.51324	913.934
Vendor	0.00924	0.00568	0.18300	0.08067	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	164.573	164.573	0.00321	0.02462	0.05762	172.048
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15609	0.11993	0.13140	1.98945	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	845.767	845.767	0.00705	0.00529	0.01334	847.534
Vendor	0.00854	0.00497	0.18656	0.07834	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	164.786	164.786	0.00321	0.02462	0.00149	172.205
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11149	0.08693	0.06929	1.46702	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	614.214	614.214	0.00504	0.00378	0.15864	615.624
Vendor	0.00622	0.00380	0.13124	0.05508	0.00128	0.00128	0.04591	0.04719	0.00128	0.01276	0.01405	—	117.616	117.616	0.00229	0.01759	0.01777	122.932
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02035	0.01586	0.01265	0.26773	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	101.690	101.690	0.00083	0.00063	0.02626	101.924
Vendor	0.00114	0.00069	0.02395	0.01005	0.00023	0.00023	0.00838	0.00861	0.00023	0.00233	0.00256	—	19.4727	19.4727	0.00038	0.00291	0.00294	20.3528
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.231. Paving (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37734	0.31707	3.45210	6.77047	0.00973	0.06742	—	0.06742	0.06203	—	0.06203	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37734	0.31707	3.45210	6.77047	0.00973	0.06742	—	0.06742	0.06203	—	0.06203	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13144	0.11045	1.20249	2.35840	0.00339	0.02348	—	0.02348	0.02161	—	0.02161	—	366.959	366.959	0.01489	0.00298	—	368.218
Paving	0.00217	0.00217	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02399	0.02016	0.21945	0.43041	0.00062	0.00429	—	0.00429	0.00394	—	0.00394	—	60.7542	60.7542	0.00246	0.00049	—	60.9627
Paving	0.00040	0.00040	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15256	0.11817	0.09524	2.44713	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	907.262	907.262	0.00529	0.00529	0.43626	909.407
Vendor	0.00907	0.00550	0.17408	0.07425	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	161.660	161.660	0.00321	0.02462	0.04631	169.124
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15080	0.11464	0.09877	1.94624	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	841.606	841.606	0.00705	0.00529	0.01129	843.370
Vendor	0.00854	0.00497	0.18441	0.07654	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	161.875	161.875	0.00321	0.02462	0.00120	169.294
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05191	0.03993	0.03379	0.70037	0.00000	0.00000	0.33786	0.33786	0.00000	0.07878	0.07878	—	298.051	298.051	0.00246	0.00184	0.06566	298.728
Vendor	0.00303	0.00186	0.06325	0.02623	0.00063	0.00063	0.02239	0.02301	0.00063	0.00622	0.00685	—	56.3436	56.3436	0.00112	0.00858	0.00698	58.9343
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00947	0.00729	0.00617	0.12782	0.00000	0.00000	0.06166	0.06166	0.00000	0.01438	0.01438	—	49.3458	49.3458	0.00041	0.00031	0.01087	49.4578
Vendor	0.00055	0.00034	0.01154	0.00479	0.00011	0.00011	0.00409	0.00420	0.00011	0.00114	0.00125	—	9.32832	9.32832	0.00019	0.00142	0.00116	9.75725
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.232. Paving (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37734	0.31707	3.45210	6.77047	0.00973	0.06742	—	0.06742	0.06203	—	0.06203	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37734	0.31707	3.45210	6.77047	0.00973	0.06742	—	0.06742	0.06203	—	0.06203	—	1,053.46	1,053.46	0.04273	0.00855	—	1,057.07
Paving	0.00624	0.00624	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13144	0.11045	1.20249	2.35840	0.00339	0.02348	—	0.02348	0.02161	—	0.02161	—	366.959	366.959	0.01489	0.00298	—	368.218
Paving	0.00217	0.00217	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02399	0.02016	0.21945	0.43041	0.00062	0.00429	—	0.00429	0.00394	—	0.00394	—	60.7542	60.7542	0.00246	0.00049	—	60.9627
Paving	0.00040	0.00040	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15256	0.11817	0.09524	2.44713	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	907.262	907.262	0.00529	0.00529	0.43626	909.407
Vendor	0.00907	0.00550	0.17408	0.07425	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	161.660	161.660	0.00321	0.02462	0.04631	169.124
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15080	0.11464	0.09877	1.94624	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	841.606	841.606	0.00705	0.00529	0.01129	843.370
Vendor	0.00854	0.00497	0.18441	0.07654	0.00180	0.00180	0.06845	0.07025	0.00180	0.01891	0.02071	—	161.875	161.875	0.00321	0.02462	0.00120	169.294
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05191	0.03993	0.03379	0.70037	0.00000	0.00000	0.33786	0.33786	0.00000	0.07878	0.07878	—	298.051	298.051	0.00246	0.00184	0.06566	298.728
Vendor	0.00303	0.00186	0.06325	0.02623	0.00063	0.00063	0.02239	0.02301	0.00063	0.00622	0.00685	—	56.3436	56.3436	0.00112	0.00858	0.00698	58.9343
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00947	0.00729	0.00617	0.12782	0.00000	0.00000	0.06166	0.06166	0.00000	0.01438	0.01438	—	49.3458	49.3458	0.00041	0.00031	0.01087	49.4578
Vendor	0.00055	0.00034	0.01154	0.00479	0.00011	0.00011	0.00409	0.00420	0.00011	0.00114	0.00125	—	9.32832	9.32832	0.00019	0.00142	0.00116	9.75725
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.233. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33789	0.28049	3.02867	3.76882	0.00618	0.03550	—	0.03550	0.03266	—	0.03266	—	562.233	562.233	0.02281	0.00456	—	564.163
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00265	0.00154	0.03470	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.51493	9.51493	0.00097	0.00150	0.01261	9.99854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33789	0.28049	3.02867	3.76882	0.00618	0.03550	—	0.03550	0.03266	—	0.03266	—	562.233	562.233	0.02281	0.00456	—	564.163
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00132	0.03677	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.59037	9.59037	0.00097	0.00154	0.00033	10.0748
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24135	0.20035	2.16334	2.69202	0.00441	0.02536	—	0.02536	0.02333	—	0.02333	—	401.595	401.595	0.01629	0.00326	—	402.973
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00104	0.02554	0.01710	0.00006	0.00009	0.36647	0.36657	0.00009	0.03666	0.03675	—	6.81899	6.81899	0.00069	0.00107	0.00389	7.15930
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04405	0.03656	0.39481	0.49129	0.00081	0.00463	—	0.00463	0.00426	—	0.00426	—	66.4887	66.4887	0.00270	0.00054	—	66.7168
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00466	0.00312	0.00001	0.00002	0.06688	0.06690	0.00002	0.00669	0.00671	—	1.12896	1.12896	0.00011	0.00018	0.00064	1.18530

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29101	0.28748	0.24163	4.35104	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,039.23	1,039.23	0.01058	0.03792	2.83684	1,053.63
Vendor	0.00660	0.00284	0.12579	0.04961	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.342	116.342	0.00268	0.01690	0.24053	121.684
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28043	0.24251	0.27955	3.48154	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	964.187	964.187	0.01411	0.03792	0.07372	975.914
Vendor	0.00642	0.00266	0.13330	0.05120	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.431	116.431	0.00268	0.01690	0.00623	121.539
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20031	0.19653	0.19842	2.60208	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	700.082	700.082	0.00882	0.02709	0.87652	709.251
Vendor	0.00465	0.00197	0.09369	0.03594	0.00064	0.00128	0.02295	0.02424	0.00128	0.00638	0.00767	—	83.1280	83.1280	0.00191	0.01207	0.07396	86.8463
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03656	0.03587	0.03621	0.47488	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	115.907	115.907	0.00146	0.00448	0.14512	117.425
Vendor	0.00085	0.00036	0.01710	0.00656	0.00012	0.00023	0.00419	0.00442	0.00023	0.00116	0.00140	—	13.7628	13.7628	0.00032	0.00200	0.01224	14.3784
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.234. Architectural Coating (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.33789	0.28049	3.02867	3.76882	0.00618	0.03550	—	0.03550	0.03266	—	0.03266	—	562.233	562.233	0.02281	0.00456	—	564.163
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00265	0.00154	0.03470	0.02363	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.51493	9.51493	0.00097	0.00150	0.01261	9.99854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33789	0.28049	3.02867	3.76882	0.00618	0.03550	—	0.03550	0.03266	—	0.03266	—	562.233	562.233	0.02281	0.00456	—	564.163
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00132	0.03677	0.02434	0.00009	0.00013	0.74230	0.74244	0.00013	0.07420	0.07433	—	9.59037	9.59037	0.00097	0.00154	0.00033	10.0748
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24135	0.20035	2.16334	2.69202	0.00441	0.02536	—	0.02536	0.02333	—	0.02333	—	401.595	401.595	0.01629	0.00326	—	402.973
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00183	0.00104	0.02554	0.01710	0.00006	0.00009	0.36647	0.36657	0.00009	0.03666	0.03675	—	6.81899	6.81899	0.00069	0.00107	0.00389	7.15930
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04405	0.03656	0.39481	0.49129	0.00081	0.00463	—	0.00463	0.00426	—	0.00426	—	66.4887	66.4887	0.00270	0.00054	—	66.7168

Architect Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00466	0.00312	0.00001	0.00002	0.06688	0.06690	0.00002	0.00669	0.00671	—	1.12896	1.12896	0.00011	0.00018	0.00064	1.18530
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29101	0.28748	0.24163	4.35104	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,039.23	1,039.23	0.01058	0.03792	2.83684	1,053.63
Vendor	0.00660	0.00284	0.12579	0.04961	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.342	116.342	0.00268	0.01690	0.24053	121.684
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28043	0.24251	0.27955	3.48154	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	964.187	964.187	0.01411	0.03792	0.07372	975.914
Vendor	0.00642	0.00266	0.13330	0.05120	0.00090	0.00180	0.03422	0.03602	0.00180	0.00946	0.01125	—	116.431	116.431	0.00268	0.01690	0.00623	121.539
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20031	0.19653	0.19842	2.60208	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	700.082	700.082	0.00882	0.02709	0.87652	709.251
Vendor	0.00465	0.00197	0.09369	0.03594	0.00064	0.00128	0.02295	0.02424	0.00128	0.00638	0.00767	—	83.1280	83.1280	0.00191	0.01207	0.07396	86.8463
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03656	0.03587	0.03621	0.47488	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	115.907	115.907	0.00146	0.00448	0.14512	117.425
Vendor	0.00085	0.00036	0.01710	0.00656	0.00012	0.00023	0.00419	0.00442	0.00023	0.00116	0.00140	—	13.7628	13.7628	0.00032	0.00200	0.01224	14.3784
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.235. Architectural Coating (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32737	0.27179	3.00805	3.75771	0.00618	0.03145	—	0.03145	0.02893	—	0.02893	—	562.240	562.240	0.02281	0.00456	—	564.169
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03417	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.30540	9.30540	0.00093	0.00150	0.01148	9.78677
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32737	0.27179	3.00805	3.75771	0.00618	0.03145	—	0.03145	0.02893	—	0.02893	—	562.240	562.240	0.02281	0.00456	—	564.169
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03629	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.38160	9.38160	0.00088	0.00150	0.00030	9.85068
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23383	0.19413	2.14861	2.68408	0.00441	0.02246	—	0.02246	0.02066	—	0.02066	—	401.600	401.600	0.01629	0.00326	—	402.978
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02516	0.01710	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.66958	6.66958	0.00063	0.00107	0.00354	7.00797

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04267	0.03543	0.39212	0.48984	0.00081	0.00410	—	0.00410	0.00377	—	0.00377	—	66.4894	66.4894	0.00270	0.00054	—	66.7176
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00459	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.10423	1.10423	0.00010	0.00018	0.00059	1.16025
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27866	0.24251	0.20547	4.09090	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,021.82	1,021.82	0.01058	0.03792	2.52890	1,035.91
Vendor	0.00660	0.00284	0.12067	0.04854	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.843	112.843	0.00268	0.01600	0.21223	117.889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26985	0.23193	0.24515	3.27607	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	948.089	948.089	0.01235	0.03792	0.06579	959.764
Vendor	0.00633	0.00266	0.12729	0.04995	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.934	112.934	0.00268	0.01600	0.00551	117.774
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19149	0.16440	0.17385	2.43453	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	688.405	688.405	0.00882	0.02709	0.77987	697.477
Vendor	0.00465	0.00197	0.09004	0.03517	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	80.6293	80.6293	0.00191	0.01143	0.06551	84.1477
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03495	0.03000	0.03173	0.44430	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	113.973	113.973	0.00146	0.00448	0.12912	115.475
Vendor	0.00085	0.00036	0.01643	0.00642	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	13.3491	13.3491	0.00032	0.00189	0.01085	13.9316
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.236. Architectural Coating (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32737	0.27179	3.00805	3.75771	0.00618	0.03145	—	0.03145	0.02893	—	0.02893	—	562.240	562.240	0.02281	0.00456	—	564.169
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03417	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.30540	9.30540	0.00093	0.00150	0.01148	9.78677
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32737	0.27179	3.00805	3.75771	0.00618	0.03145	—	0.03145	0.02893	—	0.02893	—	562.240	562.240	0.02281	0.00456	—	564.169
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03629	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.38160	9.38160	0.00088	0.00150	0.00030	9.85068
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23383	0.19413	2.14861	2.68408	0.00441	0.02246	—	0.02246	0.02066	—	0.02066	—	401.600	401.600	0.01629	0.00326	—	402.978

Architect Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02516	0.01710	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.66958	6.66958	0.00063	0.00107	0.00354	7.00797
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04267	0.03543	0.39212	0.48984	0.00081	0.00410	—	0.00410	0.00377	—	0.00377	—	66.4894	66.4894	0.00270	0.00054	—	66.7176
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00459	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.10423	1.10423	0.00010	0.00018	0.00059	1.16025
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27866	0.24251	0.20547	4.09090	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,021.82	1,021.82	0.01058	0.03792	2.52890	1,035.91
Vendor	0.00660	0.00284	0.12067	0.04854	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.843	112.843	0.00268	0.01600	0.21223	117.889
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26985	0.23193	0.24515	3.27607	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	948.089	948.089	0.01235	0.03792	0.06579	959.764
Vendor	0.00633	0.00266	0.12729	0.04995	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	112.934	112.934	0.00268	0.01600	0.00551	117.774
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19149	0.16440	0.17385	2.43453	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	688.405	688.405	0.00882	0.02709	0.77987	697.477
Vendor	0.00465	0.00197	0.09004	0.03517	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	80.6293	80.6293	0.00191	0.01143	0.06551	84.1477
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03495	0.03000	0.03173	0.44430	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	113.973	113.973	0.00146	0.00448	0.12912	115.475
Vendor	0.00085	0.00036	0.01643	0.00642	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	13.3491	13.3491	0.00032	0.00189	0.01085	13.9316
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.237. Architectural Coating (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31940	0.26519	2.98970	3.74956	0.00618	0.02791	—	0.02791	0.02567	—	0.02567	—	562.249	562.249	0.02281	0.00456	—	564.179
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03369	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.10412	9.10412	0.00088	0.00146	0.01040	9.57018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31940	0.26519	2.98970	3.74956	0.00618	0.02791	—	0.02791	0.02567	—	0.02567	—	562.249	562.249	0.02281	0.00456	—	564.179
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03580	0.02429	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.18106	9.18106	0.00088	0.00146	0.00027	9.63698

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22814	0.18942	2.13550	2.67826	0.00441	0.01993	—	0.01993	0.01834	—	0.01834	—	401.606	401.606	0.01629	0.00326	—	402.985
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02485	0.01707	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.52603	6.52603	0.00063	0.00104	0.00320	6.85470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04164	0.03457	0.38973	0.48878	0.00081	0.00364	—	0.00364	0.00335	—	0.00335	—	66.4905	66.4905	0.00270	0.00054	—	66.7187
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00453	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.08046	1.08046	0.00010	0.00017	0.00053	1.13487
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26808	0.23193	0.20371	3.83252	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,005.73	1,005.73	0.01058	0.00529	2.24428	1,009.81
Vendor	0.00570	0.00284	0.11556	0.04665	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.157	109.157	0.00268	0.01591	0.18522	114.150
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25926	0.22134	0.24339	3.07060	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	933.216	933.216	0.01235	0.03792	0.05832	944.883
Vendor	0.00543	0.00266	0.12217	0.04797	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.250	109.250	0.00268	0.01600	0.00480	114.089

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18393	0.15684	0.17133	2.29155	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	677.600	677.600	0.00756	0.02709	0.69321	686.553
Vendor	0.00401	0.00197	0.08638	0.03376	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	77.9974	77.9974	0.00191	0.01143	0.05706	81.5073
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03357	0.02862	0.03127	0.41821	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	112.184	112.184	0.00125	0.00448	0.11477	113.667
Vendor	0.00073	0.00036	0.01576	0.00616	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	12.9134	12.9134	0.00032	0.00189	0.00945	13.4945
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.238. Architectural Coating (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31940	0.26519	2.98970	3.74956	0.00618	0.02791	—	0.02791	0.02567	—	0.02567	—	562.249	562.249	0.02281	0.00456	—	564.179
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00260	0.00154	0.03369	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.10412	9.10412	0.00088	0.00146	0.01040	9.57018
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.31940	0.26519	2.98970	3.74956	0.00618	0.02791	—	0.02791	0.02567	—	0.02567	—	562.249	562.249	0.02281	0.00456	—	564.179
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00132	0.03580	0.02429	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	9.18106	9.18106	0.00088	0.00146	0.00027	9.63698
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22814	0.18942	2.13550	2.67826	0.00441	0.01993	—	0.01993	0.01834	—	0.01834	—	401.606	401.606	0.01629	0.00326	—	402.985
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00180	0.00104	0.02485	0.01707	0.00006	0.00009	0.36647	0.36657	0.00006	0.03666	0.03672	—	6.52603	6.52603	0.00063	0.00104	0.00320	6.85470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04164	0.03457	0.38973	0.48878	0.00081	0.00364	—	0.00364	0.00335	—	0.00335	—	66.4905	66.4905	0.00270	0.00054	—	66.7187
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00033	0.00019	0.00453	0.00312	0.00001	0.00002	0.06688	0.06690	0.00001	0.00669	0.00670	—	1.08046	1.08046	0.00010	0.00017	0.00053	1.13487
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26808	0.23193	0.20371	3.83252	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	1,005.73	1,005.73	0.01058	0.00529	2.24428	1,009.81

Vendor	0.00570	0.00284	0.11556	0.04665	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.157	109.157	0.00268	0.01591	0.18522	114.150
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25926	0.22134	0.24339	3.07060	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	933.216	933.216	0.01235	0.03792	0.05832	944.883
Vendor	0.00543	0.00266	0.12217	0.04797	0.00090	0.00180	0.03422	0.03602	0.00090	0.00946	0.01035	—	109.250	109.250	0.00268	0.01600	0.00480	114.089
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18393	0.15684	0.17133	2.29155	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	677.600	677.600	0.00756	0.02709	0.69321	686.553
Vendor	0.00401	0.00197	0.08638	0.03376	0.00064	0.00128	0.02295	0.02424	0.00064	0.00638	0.00702	—	77.9974	77.9974	0.00191	0.01143	0.05706	81.5073
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03357	0.02862	0.03127	0.41821	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	112.184	112.184	0.00125	0.00448	0.11477	113.667
Vendor	0.00073	0.00036	0.01576	0.00616	0.00012	0.00023	0.00419	0.00442	0.00012	0.00116	0.00128	—	12.9134	12.9134	0.00032	0.00189	0.00945	13.4945
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.239. Architectural Coating (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31233	0.25933	2.97500	3.74257	0.00618	0.02502	—	0.02502	0.02302	—	0.02302	—	562.221	562.221	0.02281	0.00456	—	564.151

Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03329	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.91576	8.91576	0.00088	0.00146	0.00933	9.38074
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31233	0.25933	2.97500	3.74257	0.00618	0.02502	—	0.02502	0.02302	—	0.02302	—	562.221	562.221	0.02281	0.00456	—	564.151
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03541	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.99349	8.99349	0.00084	0.00146	0.00024	9.44828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22370	0.18574	2.13082	2.68059	0.00443	0.01792	—	0.01792	0.01649	—	0.01649	—	402.687	402.687	0.01633	0.00327	—	404.069
Architectural Coatings	14.8774	14.8774	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00174	0.00104	0.02457	0.01715	0.00006	0.00009	0.36748	0.36757	0.00006	0.03676	0.03682	—	6.40922	6.40922	0.00063	0.00104	0.00288	6.73845
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04083	0.03390	0.38888	0.48921	0.00081	0.00327	—	0.00327	0.00301	—	0.00301	—	66.6694	66.6694	0.00270	0.00054	—	66.8982

Architectural Coating	2.71513	2.71513	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00448	0.00313	0.00001	0.00002	0.06706	0.06708	0.00001	0.00671	0.00672	—	1.06112	1.06112	0.00010	0.00017	0.00048	1.11563
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25574	0.21958	0.16932	3.61029	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	991.154	991.154	0.00882	0.00529	1.97833	994.930
Vendor	0.00570	0.00284	0.11134	0.04557	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.533	105.533	0.00268	0.01501	0.15950	110.233
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24868	0.21076	0.20723	2.90481	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	919.732	919.732	0.01058	0.03792	0.05132	931.348
Vendor	0.00543	0.00266	0.11813	0.04600	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.629	105.629	0.00268	0.01510	0.00413	110.199
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17812	0.15096	0.14717	2.15824	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	669.640	669.640	0.00758	0.00379	0.61157	671.570
Vendor	0.00402	0.00197	0.08302	0.03308	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	75.6163	75.6163	0.00192	0.01075	0.04920	78.9170
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03251	0.02755	0.02686	0.39388	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	110.867	110.867	0.00125	0.00063	0.10125	111.186
Vendor	0.00073	0.00036	0.01515	0.00604	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	12.5191	12.5191	0.00032	0.00178	0.00814	13.0656
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.240. Architectural Coating (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31233	0.25933	2.97500	3.74257	0.00618	0.02502	—	0.02502	0.02302	—	0.02302	—	562.221	562.221	0.02281	0.00456	—	564.151
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03329	0.02363	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.91576	8.91576	0.00088	0.00146	0.00933	9.38074
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31233	0.25933	2.97500	3.74257	0.00618	0.02502	—	0.02502	0.02302	—	0.02302	—	562.221	562.221	0.02281	0.00456	—	564.151
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03541	0.02434	0.00009	0.00013	0.74230	0.74244	0.00009	0.07420	0.07428	—	8.99349	8.99349	0.00084	0.00146	0.00024	9.44828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22370	0.18574	2.13082	2.68059	0.00443	0.01792	—	0.01792	0.01649	—	0.01649	—	402.687	402.687	0.01633	0.00327	—	404.069
Architectural Coatings	14.8774	14.8774	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00174	0.00104	0.02457	0.01715	0.00006	0.00009	0.36748	0.36757	0.00006	0.03676	0.03682	—	6.40922	6.40922	0.00063	0.00104	0.00288	6.73845
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04083	0.03390	0.38888	0.48921	0.00081	0.00327	—	0.00327	0.00301	—	0.00301	—	66.6694	66.6694	0.00270	0.00054	—	66.8982
Architectural Coatings	2.71513	2.71513	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00448	0.00313	0.00001	0.00002	0.06706	0.06708	0.00001	0.00671	0.00672	—	1.06112	1.06112	0.00010	0.00017	0.00048	1.11563
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25574	0.21958	0.16932	3.61029	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	991.154	991.154	0.00882	0.00529	1.97833	994.930
Vendor	0.00570	0.00284	0.11134	0.04557	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.533	105.533	0.00268	0.01501	0.15950	110.233
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24868	0.21076	0.20723	2.90481	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	919.732	919.732	0.01058	0.03792	0.05132	931.348
Vendor	0.00543	0.00266	0.11813	0.04600	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	105.629	105.629	0.00268	0.01510	0.00413	110.199
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17812	0.15096	0.14717	2.15824	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	669.640	669.640	0.00758	0.00379	0.61157	671.570
Vendor	0.00402	0.00197	0.08302	0.03308	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	75.6163	75.6163	0.00192	0.01075	0.04920	78.9170
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03251	0.02755	0.02686	0.39388	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	110.867	110.867	0.00125	0.00063	0.10125	111.186

Vendor	0.00073	0.00036	0.01515	0.00604	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	12.5191	12.5191	0.00032	0.00178	0.00814	13.0656
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.241. Architectural Coating (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30747	0.25530	2.96315	3.73908	0.00618	0.02259	—	0.02259	0.02079	—	0.02079	—	562.247	562.247	0.02281	0.00456	—	564.176
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03285	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.74600	8.74600	0.00084	0.00141	0.00820	9.19561
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30747	0.25530	2.96315	3.73908	0.00618	0.02259	—	0.02259	0.02079	—	0.02079	—	562.247	562.247	0.02281	0.00456	—	564.176
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03497	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.82458	8.82458	0.00084	0.00141	0.00021	9.26620
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.21962	0.18236	2.11653	2.67077	0.00441	0.01614	—	0.01614	0.01485	—	0.01485	—	401.605	401.605	0.01629	0.00326	—	402.983
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02419	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.27073	6.27073	0.00060	0.00101	0.00254	6.58856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04008	0.03328	0.38627	0.48742	0.00081	0.00295	—	0.00295	0.00271	—	0.00271	—	66.4903	66.4903	0.00270	0.00054	—	66.7184
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00441	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.03819	1.03819	0.00010	0.00017	0.00042	1.09081
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21429	0.21076	0.16755	3.42422	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	978.132	978.132	0.00882	0.00529	1.74037	981.670
Vendor	0.00561	0.00275	0.10730	0.04369	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.042	102.042	0.00268	0.01501	0.13634	106.719
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20900	0.20371	0.20547	2.74079	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	907.640	907.640	0.01058	0.00529	0.04507	909.527
Vendor	0.00543	0.00266	0.11311	0.04501	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.139	102.139	0.00268	0.01501	0.00354	106.683
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14676	0.14425	0.12220	2.03770	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	659.039	659.039	0.00756	0.00378	0.53657	660.890

Vendor	0.00394	0.00197	0.07985	0.03165	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	72.9167	72.9167	0.00191	0.01072	0.04199	76.2013
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02678	0.02632	0.02230	0.37188	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	109.111	109.111	0.00125	0.00063	0.08884	109.418
Vendor	0.00072	0.00036	0.01457	0.00578	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	12.0722	12.0722	0.00032	0.00177	0.00695	12.6160
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.242. Architectural Coating (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30747	0.25530	2.96315	3.73908	0.00618	0.02259	—	0.02259	0.02079	—	0.02079	—	562.247	562.247	0.02281	0.00456	—	564.176
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03285	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.74600	8.74600	0.00084	0.00141	0.00820	9.19561
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30747	0.25530	2.96315	3.73908	0.00618	0.02259	—	0.02259	0.02079	—	0.02079	—	562.247	562.247	0.02281	0.00456	—	564.176

Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00132	0.03497	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.82458	8.82458	0.00084	0.00141	0.00021	9.26620
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21962	0.18236	2.11653	2.67077	0.00441	0.01614	—	0.01614	0.01485	—	0.01485	—	401.605	401.605	0.01629	0.00326	—	402.983
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02419	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.27073	6.27073	0.00060	0.00101	0.00254	6.58856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04008	0.03328	0.38627	0.48742	0.00081	0.00295	—	0.00295	0.00271	—	0.00271	—	66.4903	66.4903	0.00270	0.00054	—	66.7184
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00441	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.03819	1.03819	0.00010	0.00017	0.00042	1.09081
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21429	0.21076	0.16755	3.42422	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	978.132	978.132	0.00882	0.00529	1.74037	981.670
Vendor	0.00561	0.00275	0.10730	0.04369	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.042	102.042	0.00268	0.01501	0.13634	106.719
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20900	0.20371	0.20547	2.74079	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	907.640	907.640	0.01058	0.00529	0.04507	909.527
Vendor	0.00543	0.00266	0.11311	0.04501	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	102.139	102.139	0.00268	0.01501	0.00354	106.683
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14676	0.14425	0.12220	2.03770	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	659.039	659.039	0.00756	0.00378	0.53657	660.890
Vendor	0.00394	0.00197	0.07985	0.03165	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	72.9167	72.9167	0.00191	0.01072	0.04199	76.2013
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02678	0.02632	0.02230	0.37188	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	109.111	109.111	0.00125	0.00063	0.08884	109.418
Vendor	0.00072	0.00036	0.01457	0.00578	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	12.0722	12.0722	0.00032	0.00177	0.00695	12.6160
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.243. Architectural Coating (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30251	0.25116	2.95098	3.73573	0.00618	0.02034	—	0.02034	0.01872	—	0.01872	—	562.275	562.275	0.02281	0.00456	—	564.204
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00251	0.00154	0.03254	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.59529	8.59529	0.00084	0.00141	0.00719	9.04389
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30251	0.25116	2.95098	3.73573	0.00618	0.02034	—	0.02034	0.01872	—	0.01872	—	562.275	562.275	0.02281	0.00456	—	564.204
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00137	0.03466	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.67466	8.67466	0.00079	0.00141	0.00019	9.11515
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21608	0.17940	2.10785	2.66838	0.00441	0.01453	—	0.01453	0.01337	—	0.01337	—	401.625	401.625	0.01629	0.00326	—	403.003
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02400	0.01710	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.16331	6.16331	0.00060	0.00101	0.00221	6.48081
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03943	0.03274	0.38468	0.48698	0.00081	0.00265	—	0.00265	0.00244	—	0.00244	—	66.4935	66.4935	0.00270	0.00054	—	66.7217
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00438	0.00312	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.02041	1.02041	0.00010	0.00017	0.00037	1.07297

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20371	0.20018	0.13316	3.23815	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	966.036	966.036	0.00882	0.00529	1.51641	969.349
Vendor	0.00552	0.00275	0.10408	0.04270	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.7064	98.7064	0.00259	0.01411	0.11576	103.092
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19842	0.19312	0.17108	2.57853	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	896.409	896.409	0.01058	0.00529	0.03929	898.290
Vendor	0.00543	0.00257	0.10997	0.04402	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.8050	98.8050	0.00259	0.01411	0.00301	103.077
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14173	0.13921	0.12094	1.92432	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	650.903	650.903	0.00630	0.00378	0.46659	652.654
Vendor	0.00394	0.00190	0.07760	0.03088	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	70.5342	70.5342	0.00185	0.01008	0.03574	73.6195
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02586	0.02541	0.02207	0.35119	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	107.764	107.764	0.00104	0.00063	0.07725	108.054
Vendor	0.00072	0.00035	0.01416	0.00564	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.6777	11.6777	0.00031	0.00167	0.00592	12.1886
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.244. Architectural Coating (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.30251	0.25116	2.95098	3.73573	0.00618	0.02034	—	0.02034	0.01872	—	0.01872	—	562.275	562.275	0.02281	0.00456	—	564.204
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03254	0.02368	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.59529	8.59529	0.00084	0.00141	0.00719	9.04389
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30251	0.25116	2.95098	3.73573	0.00618	0.02034	—	0.02034	0.01872	—	0.01872	—	562.275	562.275	0.02281	0.00456	—	564.204
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00229	0.00137	0.03466	0.02434	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.67466	8.67466	0.00079	0.00141	0.00019	9.11515
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21608	0.17940	2.10785	2.66838	0.00441	0.01453	—	0.01453	0.01337	—	0.01337	—	401.625	401.625	0.01629	0.00326	—	403.003
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00173	0.00104	0.02400	0.01710	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.16331	6.16331	0.00060	0.00101	0.00221	6.48081
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03943	0.03274	0.38468	0.48698	0.00081	0.00265	—	0.00265	0.00244	—	0.00244	—	66.4935	66.4935	0.00270	0.00054	—	66.7217

Architect Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00032	0.00019	0.00438	0.00312	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.02041	1.02041	0.00010	0.00017	0.00037	1.07297
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20371	0.20018	0.13316	3.23815	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	966.036	966.036	0.00882	0.00529	1.51641	969.349
Vendor	0.00552	0.00275	0.10408	0.04270	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.7064	98.7064	0.00259	0.01411	0.11576	103.092
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19842	0.19312	0.17108	2.57853	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	896.409	896.409	0.01058	0.00529	0.03929	898.290
Vendor	0.00543	0.00257	0.10997	0.04402	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	98.8050	98.8050	0.00259	0.01411	0.00301	103.077
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14173	0.13921	0.12094	1.92432	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	650.903	650.903	0.00630	0.00378	0.46659	652.654
Vendor	0.00394	0.00190	0.07760	0.03088	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	70.5342	70.5342	0.00185	0.01008	0.03574	73.6195
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02586	0.02541	0.02207	0.35119	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	107.764	107.764	0.00104	0.00063	0.07725	108.054
Vendor	0.00072	0.00035	0.01416	0.00564	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.6777	11.6777	0.00031	0.00167	0.00592	12.1886
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.245. Architectural Coating (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29980	0.24891	2.94150	3.73331	0.00618	0.01874	—	0.01874	0.01724	—	0.01724	—	562.268	562.268	0.02281	0.00456	—	564.197
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03223	0.02372	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.46346	8.46346	0.00075	0.00137	0.00620	8.89573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29980	0.24891	2.94150	3.73331	0.00618	0.01874	—	0.01874	0.01724	—	0.01724	—	562.268	562.268	0.02281	0.00456	—	564.197
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00225	0.00137	0.03439	0.02438	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.54357	8.54357	0.00075	0.00137	0.00016	8.96980
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21414	0.17779	2.10107	2.66665	0.00441	0.01339	—	0.01339	0.01232	—	0.01232	—	401.620	401.620	0.01629	0.00326	—	402.998
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00170	0.00104	0.02378	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.06936	6.06936	0.00054	0.00098	0.00191	6.37560

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03908	0.03245	0.38345	0.48666	0.00081	0.00244	—	0.00244	0.00225	—	0.00225	—	66.4927	66.4927	0.00270	0.00054	—	66.7209
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00434	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.00485	1.00485	0.00009	0.00016	0.00032	1.05555
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20018	0.19665	0.13316	3.08824	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	955.231	955.231	0.00705	0.00529	1.31577	958.300
Vendor	0.00552	0.00275	0.10004	0.04171	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.5563	95.5563	0.00259	0.01411	0.09763	99.9234
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19489	0.18960	0.17108	2.45419	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	886.374	886.374	0.00882	0.00529	0.03406	888.205
Vendor	0.00543	0.00257	0.10683	0.04295	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.6562	95.6562	0.00259	0.01411	0.00253	99.9283
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13921	0.13669	0.11968	1.83803	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	643.623	643.623	0.00630	0.00378	0.40660	645.313
Vendor	0.00388	0.00190	0.07472	0.03017	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	68.2845	68.2845	0.00185	0.01008	0.03014	71.3643
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02541	0.02495	0.02184	0.33544	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	106.559	106.559	0.00104	0.00063	0.06732	106.839
Vendor	0.00071	0.00035	0.01364	0.00551	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.3053	11.3053	0.00031	0.00167	0.00499	11.8152
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.246. Architectural Coating (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29980	0.24891	2.94150	3.73331	0.00618	0.01874	—	0.01874	0.01724	—	0.01724	—	562.268	562.268	0.02281	0.00456	—	564.197
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00154	0.03223	0.02372	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.46346	8.46346	0.00075	0.00137	0.00620	8.89573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29980	0.24891	2.94150	3.73331	0.00618	0.01874	—	0.01874	0.01724	—	0.01724	—	562.268	562.268	0.02281	0.00456	—	564.197
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00225	0.00137	0.03439	0.02438	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.54357	8.54357	0.00075	0.00137	0.00016	8.96980
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21414	0.17779	2.10107	2.66665	0.00441	0.01339	—	0.01339	0.01232	—	0.01232	—	401.620	401.620	0.01629	0.00326	—	402.998

Architect Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00170	0.00104	0.02378	0.01713	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	6.06936	6.06936	0.00054	0.00098	0.00191	6.37560
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03908	0.03245	0.38345	0.48666	0.00081	0.00244	—	0.00244	0.00225	—	0.00225	—	66.4927	66.4927	0.00270	0.00054	—	66.7209
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00434	0.00313	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	1.00485	1.00485	0.00009	0.00016	0.00032	1.05555
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20018	0.19665	0.13316	3.08824	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	955.231	955.231	0.00705	0.00529	1.31577	958.300
Vendor	0.00552	0.00275	0.10004	0.04171	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.5563	95.5563	0.00259	0.01411	0.09763	99.9234
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19489	0.18960	0.17108	2.45419	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	886.374	886.374	0.00882	0.00529	0.03406	888.205
Vendor	0.00543	0.00257	0.10683	0.04295	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	95.6562	95.6562	0.00259	0.01411	0.00253	99.9283
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13921	0.13669	0.11968	1.83803	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	643.623	643.623	0.00630	0.00378	0.40660	645.313
Vendor	0.00388	0.00190	0.07472	0.03017	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	68.2845	68.2845	0.00185	0.01008	0.03014	71.3643
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02541	0.02495	0.02184	0.33544	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	106.559	106.559	0.00104	0.00063	0.06732	106.839
Vendor	0.00071	0.00035	0.01364	0.00551	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	11.3053	11.3053	0.00031	0.00167	0.00499	11.8152
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.247. Architectural Coating (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29799	0.24740	2.93220	3.72990	0.00618	0.01727	—	0.01727	0.01589	—	0.01589	—	562.265	562.265	0.02281	0.00456	—	564.194
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00154	0.03192	0.02377	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.34807	8.34807	0.00075	0.00132	0.00534	8.76633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29799	0.24740	2.93220	3.72990	0.00618	0.01727	—	0.01727	0.01589	—	0.01589	—	562.265	562.265	0.02281	0.00456	—	564.194
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03413	0.02443	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.42893	8.42893	0.00075	0.00137	0.00014	8.85514

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21343	0.17720	2.10017	2.67151	0.00443	0.01237	—	0.01237	0.01138	—	0.01138	—	402.718	402.718	0.01634	0.00327	—	404.100
Architectural Coatings	14.8774	14.8774	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00104	0.02362	0.01724	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	6.00356	6.00356	0.00054	0.00098	0.00165	6.31038
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03895	0.03234	0.38328	0.48755	0.00081	0.00226	—	0.00226	0.00208	—	0.00208	—	66.6746	66.6746	0.00270	0.00054	—	66.9034
Architectural Coatings	2.71513	2.71513	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00431	0.00315	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.99396	0.99396	0.00009	0.00016	0.00027	1.04476
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19489	0.19136	0.13140	2.93832	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	945.646	945.646	0.00705	0.00529	1.13380	948.533
Vendor	0.00462	0.00275	0.09780	0.04081	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.6694	92.6694	0.00169	0.01411	0.08168	96.9981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18960	0.18607	0.16932	2.33161	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	877.460	877.460	0.00882	0.00529	0.02939	879.287
Vendor	0.00436	0.00257	0.10378	0.04196	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.7706	92.7706	0.00169	0.01411	0.00212	97.0197

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13580	0.13327	0.09664	1.75653	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	638.888	638.888	0.00632	0.00379	0.35090	640.527
Vendor	0.00325	0.00191	0.07274	0.02961	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	66.4043	66.4043	0.00121	0.01011	0.02524	69.4714
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02478	0.02432	0.01764	0.32057	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	105.775	105.775	0.00105	0.00063	0.05810	106.046
Vendor	0.00059	0.00035	0.01327	0.00540	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	10.9940	10.9940	0.00020	0.00167	0.00418	11.5018
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.248. Architectural Coating (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29799	0.24740	2.93220	3.72990	0.00618	0.01727	—	0.01727	0.01589	—	0.01589	—	562.265	562.265	0.02281	0.00456	—	564.194
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00154	0.03192	0.02377	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.34807	8.34807	0.00075	0.00132	0.00534	8.76633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.29799	0.24740	2.93220	3.72990	0.00618	0.01727	—	0.01727	0.01589	—	0.01589	—	562.265	562.265	0.02281	0.00456	—	564.194
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03413	0.02443	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.42893	8.42893	0.00075	0.00137	0.00014	8.85514
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21343	0.17720	2.10017	2.67151	0.00443	0.01237	—	0.01237	0.01138	—	0.01138	—	402.718	402.718	0.01634	0.00327	—	404.100
Architectural Coatings	14.8774	14.8774	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00104	0.02362	0.01724	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	6.00356	6.00356	0.00054	0.00098	0.00165	6.31038
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03895	0.03234	0.38328	0.48755	0.00081	0.00226	—	0.00226	0.00208	—	0.00208	—	66.6746	66.6746	0.00270	0.00054	—	66.9034
Architectural Coatings	2.71513	2.71513	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00031	0.00019	0.00431	0.00315	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.99396	0.99396	0.00009	0.00016	0.00027	1.04476
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19489	0.19136	0.13140	2.93832	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	945.646	945.646	0.00705	0.00529	1.13380	948.533

Vendor	0.00462	0.00275	0.09780	0.04081	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.6694	92.6694	0.00169	0.01411	0.08168	96.9981
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18960	0.18607	0.16932	2.33161	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	877.460	877.460	0.00882	0.00529	0.02939	879.287
Vendor	0.00436	0.00257	0.10378	0.04196	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	92.7706	92.7706	0.00169	0.01411	0.00212	97.0197
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13580	0.13327	0.09664	1.75653	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	638.888	638.888	0.00632	0.00379	0.35090	640.527
Vendor	0.00325	0.00191	0.07274	0.02961	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	66.4043	66.4043	0.00121	0.01011	0.02524	69.4714
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02478	0.02432	0.01764	0.32057	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	105.775	105.775	0.00105	0.00063	0.05810	106.046
Vendor	0.00059	0.00035	0.01327	0.00540	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	10.9940	10.9940	0.00020	0.00167	0.00418	11.5018
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.249. Architectural Coating (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29602	0.24577	2.92383	3.72133	0.00618	0.01630	—	0.01630	0.01500	—	0.01500	—	562.264	562.264	0.02281	0.00456	—	564.194

Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03170	0.02381	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25142	8.25142	0.00071	0.00132	0.00458	8.66782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29602	0.24577	2.92383	3.72133	0.00618	0.01630	—	0.01630	0.01500	—	0.01500	—	562.264	562.264	0.02281	0.00456	—	564.194
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03386	0.02452	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.33299	8.33299	0.00071	0.00137	0.00012	8.75807
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21144	0.17555	2.08845	2.65810	0.00441	0.01164	—	0.01164	0.01071	—	0.01071	—	401.617	401.617	0.01629	0.00326	—	402.995
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02340	0.01723	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.91834	5.91834	0.00050	0.00098	0.00141	6.22330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03859	0.03204	0.38114	0.48510	0.00081	0.00212	—	0.00212	0.00195	—	0.00195	—	66.4923	66.4923	0.00270	0.00054	—	66.7205

Architectural Coating	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00427	0.00314	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97985	0.97985	0.00008	0.00016	0.00023	1.03034
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18783	0.18431	0.13140	2.82633	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	937.058	937.058	0.00705	0.00529	0.97517	939.786
Vendor	0.00462	0.00275	0.09475	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.1129	90.1129	0.00169	0.01321	0.06779	94.1596
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18254	0.17902	0.13492	2.24519	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	869.449	869.449	0.00882	0.00529	0.02524	871.271
Vendor	0.00436	0.00257	0.10064	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.2152	90.2152	0.00169	0.01321	0.00176	94.1959
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13039	0.12787	0.09511	1.66795	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	631.353	631.353	0.00630	0.00378	0.30028	632.937
Vendor	0.00324	0.00190	0.07094	0.02889	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	64.3970	64.3970	0.00121	0.00944	0.02095	67.2600
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02380	0.02334	0.01736	0.30440	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	104.528	104.528	0.00104	0.00063	0.04972	104.790
Vendor	0.00059	0.00035	0.01295	0.00527	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.6617	10.6617	0.00020	0.00156	0.00347	11.1357
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.250. Architectural Coating (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29602	0.24577	2.92383	3.72133	0.00618	0.01630	—	0.01630	0.01500	—	0.01500	—	562.264	562.264	0.02281	0.00456	—	564.194
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03170	0.02381	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25142	8.25142	0.00071	0.00132	0.00458	8.66782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29602	0.24577	2.92383	3.72133	0.00618	0.01630	—	0.01630	0.01500	—	0.01500	—	562.264	562.264	0.02281	0.00456	—	564.194
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03386	0.02452	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.33299	8.33299	0.00071	0.00137	0.00012	8.75807
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21144	0.17555	2.08845	2.65810	0.00441	0.01164	—	0.01164	0.01071	—	0.01071	—	401.617	401.617	0.01629	0.00326	—	402.995
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00167	0.00107	0.02340	0.01723	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.91834	5.91834	0.00050	0.00098	0.00141	6.22330
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03859	0.03204	0.38114	0.48510	0.00081	0.00212	—	0.00212	0.00195	—	0.00195	—	66.4923	66.4923	0.00270	0.00054	—	66.7205
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00427	0.00314	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97985	0.97985	0.00008	0.00016	0.00023	1.03034
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18783	0.18431	0.13140	2.82633	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	937.058	937.058	0.00705	0.00529	0.97517	939.786
Vendor	0.00462	0.00275	0.09475	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.1129	90.1129	0.00169	0.01321	0.06779	94.1596
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18254	0.17902	0.13492	2.24519	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	869.449	869.449	0.00882	0.00529	0.02524	871.271
Vendor	0.00436	0.00257	0.10064	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	90.2152	90.2152	0.00169	0.01321	0.00176	94.1959
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13039	0.12787	0.09511	1.66795	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	631.353	631.353	0.00630	0.00378	0.30028	632.937
Vendor	0.00324	0.00190	0.07094	0.02889	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	64.3970	64.3970	0.00121	0.00944	0.02095	67.2600
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02380	0.02334	0.01736	0.30440	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	104.528	104.528	0.00104	0.00063	0.04972	104.790

Vendor	0.00059	0.00035	0.01295	0.00527	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.6617	10.6617	0.00020	0.00156	0.00347	11.1357
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.251. Architectural Coating (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29489	0.24482	2.91670	3.71817	0.00618	0.01518	—	0.01518	0.01397	—	0.01397	—	562.258	562.258	0.02281	0.00456	—	564.188
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03148	0.02390	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.16786	8.16786	0.00071	0.00128	0.00393	8.57048
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29489	0.24482	2.91670	3.71817	0.00618	0.01518	—	0.01518	0.01397	—	0.01397	—	562.258	562.258	0.02281	0.00456	—	564.188
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03373	0.02456	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25014	8.25014	0.00071	0.00132	0.00010	8.66206
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.21064	0.17487	2.08335	2.65584	0.00441	0.01084	—	0.01084	0.00998	—	0.00998	—	401.613	401.613	0.01629	0.00326	—	402.991
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02327	0.01726	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.85888	5.85888	0.00050	0.00091	0.00121	6.14486
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03844	0.03191	0.38021	0.48469	0.00081	0.00198	—	0.00198	0.00182	—	0.00182	—	66.4916	66.4916	0.00270	0.00054	—	66.7198
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00425	0.00315	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97000	0.97000	0.00008	0.00015	0.00020	1.01735
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17725	0.17549	0.12963	2.71433	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	929.463	929.463	0.00705	0.00529	0.83519	932.051
Vendor	0.00462	0.00275	0.09259	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.7950	87.7950	0.00169	0.01321	0.05570	91.8297
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17725	0.17372	0.13492	2.16229	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	862.366	862.366	0.00882	0.00529	0.02160	864.185
Vendor	0.00436	0.00257	0.09866	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.8985	87.8985	0.00169	0.01321	0.00144	91.8788
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12535	0.12409	0.09511	1.61000	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	626.227	626.227	0.00504	0.00378	0.25729	627.736

Vendor	0.00324	0.00190	0.06940	0.02882	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	62.7418	62.7418	0.00121	0.00944	0.01718	65.6011
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02288	0.02265	0.01736	0.29383	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	103.679	103.679	0.00083	0.00063	0.04260	103.929
Vendor	0.00059	0.00035	0.01267	0.00526	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.3876	10.3876	0.00020	0.00156	0.00284	10.8610
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.252. Architectural Coating (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29489	0.24482	2.91670	3.71817	0.00618	0.01518	—	0.01518	0.01397	—	0.01397	—	562.258	562.258	0.02281	0.00456	—	564.188
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03148	0.02390	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.16786	8.16786	0.00071	0.00128	0.00393	8.57048
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29489	0.24482	2.91670	3.71817	0.00618	0.01518	—	0.01518	0.01397	—	0.01397	—	562.258	562.258	0.02281	0.00456	—	564.188

Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00220	0.00137	0.03373	0.02456	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.25014	8.25014	0.00071	0.00132	0.00010	8.66206
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21064	0.17487	2.08335	2.65584	0.00441	0.01084	—	0.01084	0.00998	—	0.00998	—	401.613	401.613	0.01629	0.00326	—	402.991
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00167	0.00107	0.02327	0.01726	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.85888	5.85888	0.00050	0.00091	0.00121	6.14486
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03844	0.03191	0.38021	0.48469	0.00081	0.00198	—	0.00198	0.00182	—	0.00182	—	66.4916	66.4916	0.00270	0.00054	—	66.7198
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00425	0.00315	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.97000	0.97000	0.00008	0.00015	0.00020	1.01735
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17725	0.17549	0.12963	2.71433	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	929.463	929.463	0.00705	0.00529	0.83519	932.051
Vendor	0.00462	0.00275	0.09259	0.03982	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.7950	87.7950	0.00169	0.01321	0.05570	91.8297
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17725	0.17372	0.13492	2.16229	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	862.366	862.366	0.00882	0.00529	0.02160	864.185
Vendor	0.00436	0.00257	0.09866	0.04106	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	87.8985	87.8985	0.00169	0.01321	0.00144	91.8788
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12535	0.12409	0.09511	1.61000	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	626.227	626.227	0.00504	0.00378	0.25729	627.736
Vendor	0.00324	0.00190	0.06940	0.02882	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	62.7418	62.7418	0.00121	0.00944	0.01718	65.6011
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02288	0.02265	0.01736	0.29383	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	103.679	103.679	0.00083	0.00063	0.04260	103.929
Vendor	0.00059	0.00035	0.01267	0.00526	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.3876	10.3876	0.00020	0.00156	0.00284	10.8610
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.253. Architectural Coating (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29496	0.24488	2.91268	3.71964	0.00618	0.01466	—	0.01466	0.01348	—	0.01348	—	562.238	562.238	0.02281	0.00456	—	564.168
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00243	0.00159	0.03126	0.02394	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.09837	8.09837	0.00066	0.00128	0.00337	8.49932
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29496	0.24488	2.91268	3.71964	0.00618	0.01466	—	0.01466	0.01348	—	0.01348	—	562.238	562.238	0.02281	0.00456	—	564.168
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03351	0.02460	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.18135	8.18135	0.00066	0.00132	0.00009	8.59216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21068	0.17491	2.08048	2.65689	0.00441	0.01047	—	0.01047	0.00963	—	0.00963	—	401.599	401.599	0.01629	0.00326	—	402.977
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01729	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.80943	5.80943	0.00047	0.00091	0.00104	6.09446
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03845	0.03192	0.37969	0.48488	0.00081	0.00191	—	0.00191	0.00176	—	0.00176	—	66.4892	66.4892	0.00270	0.00054	—	66.7174
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00316	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.96182	0.96182	0.00008	0.00015	0.00017	1.00901

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17020	0.16843	0.09700	2.63673	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	922.826	922.826	0.00705	0.00529	0.70921	925.288
Vendor	0.00462	0.00284	0.09143	0.03884	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.7561	85.7561	0.00160	0.01321	0.04515	89.7779
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16843	0.16491	0.13316	2.07940	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	856.145	856.145	0.00705	0.00529	0.01843	857.917
Vendor	0.00436	0.00257	0.09651	0.04007	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.8606	85.8606	0.00160	0.01321	0.00117	89.8386
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11905	0.11779	0.09385	1.55331	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	621.716	621.716	0.00504	0.00378	0.21930	623.187
Vendor	0.00324	0.00197	0.06793	0.02818	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	61.2858	61.2858	0.00115	0.00944	0.01387	64.1402
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02173	0.02150	0.01713	0.28348	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	102.932	102.932	0.00083	0.00063	0.03631	103.176
Vendor	0.00059	0.00036	0.01240	0.00514	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.1466	10.1466	0.00019	0.00156	0.00230	10.6191
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.254. Architectural Coating (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.29496	0.24488	2.91268	3.71964	0.00618	0.01466	—	0.01466	0.01348	—	0.01348	—	562.238	562.238	0.02281	0.00456	—	564.168
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03126	0.02394	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.09837	8.09837	0.00066	0.00128	0.00337	8.49932
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29496	0.24488	2.91268	3.71964	0.00618	0.01466	—	0.01466	0.01348	—	0.01348	—	562.238	562.238	0.02281	0.00456	—	564.168
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03351	0.02460	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.18135	8.18135	0.00066	0.00132	0.00009	8.59216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21068	0.17491	2.08048	2.65689	0.00441	0.01047	—	0.01047	0.00963	—	0.00963	—	401.599	401.599	0.01629	0.00326	—	402.977
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01729	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.80943	5.80943	0.00047	0.00091	0.00104	6.09446
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03845	0.03192	0.37969	0.48488	0.00081	0.00191	—	0.00191	0.00176	—	0.00176	—	66.4892	66.4892	0.00270	0.00054	—	66.7174

Architect Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00316	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.96182	0.96182	0.00008	0.00015	0.00017	1.00901
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17020	0.16843	0.09700	2.63673	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	922.826	922.826	0.00705	0.00529	0.70921	925.288
Vendor	0.00462	0.00284	0.09143	0.03884	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.7561	85.7561	0.00160	0.01321	0.04515	89.7779
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16843	0.16491	0.13316	2.07940	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	856.145	856.145	0.00705	0.00529	0.01843	857.917
Vendor	0.00436	0.00257	0.09651	0.04007	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	85.8606	85.8606	0.00160	0.01321	0.00117	89.8386
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11905	0.11779	0.09385	1.55331	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	621.716	621.716	0.00504	0.00378	0.21930	623.187
Vendor	0.00324	0.00197	0.06793	0.02818	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	61.2858	61.2858	0.00115	0.00944	0.01387	64.1402
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02173	0.02150	0.01713	0.28348	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	102.932	102.932	0.00083	0.00063	0.03631	103.176
Vendor	0.00059	0.00036	0.01240	0.00514	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	10.1466	10.1466	0.00019	0.00156	0.00230	10.6191
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.255. Architectural Coating (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29554	0.24536	2.91023	3.72305	0.00618	0.01434	—	0.01434	0.01320	—	0.01320	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03117	0.02399	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.03964	8.03964	0.00066	0.00128	0.00288	8.44010
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29554	0.24536	2.91023	3.72305	0.00618	0.01434	—	0.01434	0.01320	—	0.01320	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03342	0.02465	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.12337	8.12337	0.00066	0.00132	0.00008	8.53417
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21168	0.17573	2.08443	2.66661	0.00443	0.01027	—	0.01027	0.00945	—	0.00945	—	402.714	402.714	0.01634	0.00327	—	404.096
Architectural Coatings	14.8774	14.8774	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01737	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	5.78350	5.78350	0.00047	0.00092	0.00089	6.06916

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03863	0.03207	0.38041	0.48666	0.00081	0.00188	—	0.00188	0.00173	—	0.00173	—	66.6740	66.6740	0.00270	0.00054	—	66.9028
Architectural Coatings	2.71513	2.71513	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00317	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.95753	0.95753	0.00008	0.00015	0.00015	1.00482
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16314	0.12699	0.09524	2.56265	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	917.019	917.019	0.00529	0.00529	0.60656	919.335
Vendor	0.00453	0.00275	0.08928	0.03803	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	83.9263	83.9263	0.00160	0.01231	0.03614	87.6711
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16314	0.12699	0.13316	2.03443	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	850.722	850.722	0.00705	0.00529	0.01568	852.491
Vendor	0.00427	0.00249	0.09535	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	84.0318	84.0318	0.00160	0.01231	0.00094	87.7415
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11432	0.08969	0.09411	1.52536	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	619.491	619.491	0.00505	0.00379	0.18715	620.934
Vendor	0.00312	0.00191	0.06664	0.02755	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	60.1434	60.1434	0.00115	0.00882	0.01115	62.8108
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02086	0.01637	0.01718	0.27838	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	102.564	102.564	0.00084	0.00063	0.03098	102.803
Vendor	0.00057	0.00035	0.01216	0.00503	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	9.95742	9.95742	0.00019	0.00146	0.00185	10.3990
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.256. Architectural Coating (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29554	0.24536	2.91023	3.72305	0.00618	0.01434	—	0.01434	0.01320	—	0.01320	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00243	0.00159	0.03117	0.02399	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.03964	8.03964	0.00066	0.00128	0.00288	8.44010
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29554	0.24536	2.91023	3.72305	0.00618	0.01434	—	0.01434	0.01320	—	0.01320	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00137	0.03342	0.02465	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.12337	8.12337	0.00066	0.00132	0.00008	8.53417
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21168	0.17573	2.08443	2.66661	0.00443	0.01027	—	0.01027	0.00945	—	0.00945	—	402.714	402.714	0.01634	0.00327	—	404.096

Architect Coatings	14.8774	14.8774	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02312	0.01737	0.00006	0.00006	0.36748	0.36754	0.00006	0.03676	0.03682	—	5.78350	5.78350	0.00047	0.00092	0.00089	6.06916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03863	0.03207	0.38041	0.48666	0.00081	0.00188	—	0.00188	0.00173	—	0.00173	—	66.6740	66.6740	0.00270	0.00054	—	66.9028
Architectural Coatings	2.71513	2.71513	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00422	0.00317	0.00001	0.00001	0.06706	0.06708	0.00001	0.00671	0.00672	—	0.95753	0.95753	0.00008	0.00015	0.00015	1.00482
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16314	0.12699	0.09524	2.56265	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	917.019	917.019	0.00529	0.00529	0.60656	919.335
Vendor	0.00453	0.00275	0.08928	0.03803	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	83.9263	83.9263	0.00160	0.01231	0.03614	87.6711
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16314	0.12699	0.13316	2.03443	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	850.722	850.722	0.00705	0.00529	0.01568	852.491
Vendor	0.00427	0.00249	0.09535	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	84.0318	84.0318	0.00160	0.01231	0.00094	87.7415
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11432	0.08969	0.09411	1.52536	0.00000	0.00000	0.69470	0.69470	0.00000	0.16199	0.16199	—	619.491	619.491	0.00505	0.00379	0.18715	620.934
Vendor	0.00312	0.00191	0.06664	0.02755	0.00064	0.00064	0.02302	0.02366	0.00064	0.00640	0.00704	—	60.1434	60.1434	0.00115	0.00882	0.01115	62.8108
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02086	0.01637	0.01718	0.27838	0.00000	0.00000	0.12678	0.12678	0.00000	0.02956	0.02956	—	102.564	102.564	0.00084	0.00063	0.03098	102.803
Vendor	0.00057	0.00035	0.01216	0.00503	0.00012	0.00012	0.00420	0.00432	0.00012	0.00117	0.00129	—	9.95742	9.95742	0.00019	0.00146	0.00185	10.3990
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.257. Architectural Coating (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29532	0.24517	2.90841	3.72284	0.00618	0.01417	—	0.01417	0.01303	—	0.01303	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03236	0.02526	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	7.99092	7.99092	0.00066	0.00128	0.00248	8.39098
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29532	0.24517	2.90841	3.72284	0.00618	0.01417	—	0.01417	0.01303	—	0.01303	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00141	0.03333	0.02478	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.07540	8.07540	0.00066	0.00132	0.00006	8.48619

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21094	0.17512	2.07743	2.65917	0.00441	0.01012	—	0.01012	0.00931	—	0.00931	—	401.614	401.614	0.01629	0.00326	—	402.992
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02293	0.01742	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.73315	5.73315	0.00047	0.00091	0.00077	6.01791
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03850	0.03196	0.37913	0.48530	0.00081	0.00185	—	0.00185	0.00170	—	0.00170	—	66.4918	66.4918	0.00270	0.00054	—	66.7200
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00418	0.00318	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.94919	0.94919	0.00008	0.00015	0.00013	0.99633
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15785	0.12170	0.09524	2.48858	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	911.712	911.712	0.00529	0.00529	0.51324	913.934
Vendor	0.00462	0.00284	0.09150	0.04034	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.2865	82.2865	0.00160	0.01231	0.02881	86.0240
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15609	0.11993	0.13140	1.98945	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	845.767	845.767	0.00705	0.00529	0.01334	847.534
Vendor	0.00427	0.00249	0.09328	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.3931	82.3931	0.00160	0.01231	0.00075	86.1026

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11149	0.08693	0.06929	1.46702	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	614.214	614.214	0.00504	0.00378	0.15864	615.624
Vendor	0.00311	0.00190	0.06562	0.02754	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	58.8081	58.8081	0.00115	0.00879	0.00888	61.4660
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02035	0.01586	0.01265	0.26773	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	101.690	101.690	0.00083	0.00063	0.02626	101.924
Vendor	0.00057	0.00035	0.01198	0.00503	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	9.73635	9.73635	0.00019	0.00146	0.00147	10.1764
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.258. Architectural Coating (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29532	0.24517	2.90841	3.72284	0.00618	0.01417	—	0.01417	0.01303	—	0.01303	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00251	0.00168	0.03236	0.02526	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	7.99092	7.99092	0.00066	0.00128	0.00248	8.39098
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.29532	0.24517	2.90841	3.72284	0.00618	0.01417	—	0.01417	0.01303	—	0.01303	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00141	0.03333	0.02478	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.07540	8.07540	0.00066	0.00132	0.00006	8.48619
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21094	0.17512	2.07743	2.65917	0.00441	0.01012	—	0.01012	0.00931	—	0.00931	—	401.614	401.614	0.01629	0.00326	—	402.992
Architectural Coatings	14.8368	14.8368	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00164	0.00107	0.02293	0.01742	0.00006	0.00006	0.36647	0.36654	0.00006	0.03666	0.03672	—	5.73315	5.73315	0.00047	0.00091	0.00077	6.01791
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03850	0.03196	0.37913	0.48530	0.00081	0.00185	—	0.00185	0.00170	—	0.00170	—	66.4918	66.4918	0.00270	0.00054	—	66.7200
Architectural Coatings	2.70771	2.70771	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00030	0.00020	0.00418	0.00318	0.00001	0.00001	0.06688	0.06689	0.00001	0.00669	0.00670	—	0.94919	0.94919	0.00008	0.00015	0.00013	0.99633
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15785	0.12170	0.09524	2.48858	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	911.712	911.712	0.00529	0.00529	0.51324	913.934

Vendor	0.00462	0.00284	0.09150	0.04034	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.2865	82.2865	0.00160	0.01231	0.02881	86.0240
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15609	0.11993	0.13140	1.98945	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	845.767	845.767	0.00705	0.00529	0.01334	847.534
Vendor	0.00427	0.00249	0.09328	0.03917	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	82.3931	82.3931	0.00160	0.01231	0.00075	86.1026
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11149	0.08693	0.06929	1.46702	0.00000	0.00000	0.69281	0.69281	0.00000	0.16155	0.16155	—	614.214	614.214	0.00504	0.00378	0.15864	615.624
Vendor	0.00311	0.00190	0.06562	0.02754	0.00064	0.00064	0.02295	0.02360	0.00064	0.00638	0.00702	—	58.8081	58.8081	0.00115	0.00879	0.00888	61.4660
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02035	0.01586	0.01265	0.26773	0.00000	0.00000	0.12644	0.12644	0.00000	0.02948	0.02948	—	101.690	101.690	0.00083	0.00063	0.02626	101.924
Vendor	0.00057	0.00035	0.01198	0.00503	0.00012	0.00012	0.00419	0.00431	0.00012	0.00116	0.00128	—	9.73635	9.73635	0.00019	0.00146	0.00147	10.1764
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.259. Architectural Coating (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29505	0.24495	2.90786	3.72258	0.00618	0.01409	—	0.01409	0.01296	—	0.01296	—	562.260	562.260	0.02281	0.00456	—	564.189

Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00163	0.03095	0.02412	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	7.95132	7.95132	0.00062	0.00128	0.00214	8.34995
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29505	0.24495	2.90786	3.72258	0.00618	0.01409	—	0.01409	0.01296	—	0.01296	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00141	0.03320	0.02482	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.03647	8.03647	0.00062	0.00132	0.00006	8.44614
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10278	0.08532	1.01291	1.29671	0.00215	0.00491	—	0.00491	0.00452	—	0.00452	—	195.856	195.856	0.00794	0.00159	—	196.528
Architectural Coatings	7.23547	7.23547	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00080	0.00054	0.01117	0.00851	0.00003	0.00003	0.17872	0.17875	0.00003	0.01788	0.01791	—	2.78219	2.78219	0.00022	0.00045	0.00032	2.92062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01876	0.01557	0.18486	0.23665	0.00039	0.00090	—	0.00090	0.00082	—	0.00082	—	32.4261	32.4261	0.00132	0.00026	—	32.5374

Architectural Coating	1.32047	1.32047	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00204	0.00155	0.00001	0.00001	0.03262	0.03262	0.00001	0.00326	0.00327	—	0.46062	0.46062	0.00004	0.00007	0.00005	0.48354
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15256	0.11817	0.09524	2.44713	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	907.262	907.262	0.00529	0.00529	0.43626	909.407
Vendor	0.00453	0.00275	0.08704	0.03713	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	80.8300	80.8300	0.00160	0.01231	0.02315	84.5619
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15080	0.11464	0.09877	1.94624	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	841.606	841.606	0.00705	0.00529	0.01129	843.370
Vendor	0.00427	0.00249	0.09221	0.03827	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	80.9375	80.9375	0.00160	0.01231	0.00060	84.6468
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05191	0.03993	0.03379	0.70037	0.00000	0.00000	0.33786	0.33786	0.00000	0.07878	0.07878	—	298.051	298.051	0.00246	0.00184	0.06566	298.728
Vendor	0.00152	0.00093	0.03163	0.01312	0.00031	0.00031	0.01119	0.01151	0.00031	0.00311	0.00343	—	28.1718	28.1718	0.00056	0.00429	0.00349	29.4671
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00947	0.00729	0.00617	0.12782	0.00000	0.00000	0.06166	0.06166	0.00000	0.01438	0.01438	—	49.3458	49.3458	0.00041	0.00031	0.01087	49.4578
Vendor	0.00028	0.00017	0.00577	0.00239	0.00006	0.00006	0.00204	0.00210	0.00006	0.00057	0.00063	—	4.66416	4.66416	0.00009	0.00071	0.00058	4.87862
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.260. Architectural Coating (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29505	0.24495	2.90786	3.72258	0.00618	0.01409	—	0.01409	0.01296	—	0.01296	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00238	0.00163	0.03095	0.02412	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	7.95132	7.95132	0.00062	0.00128	0.00214	8.34995
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29505	0.24495	2.90786	3.72258	0.00618	0.01409	—	0.01409	0.01296	—	0.01296	—	562.260	562.260	0.02281	0.00456	—	564.189
Architectural Coatings	20.7715	20.7715	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00216	0.00141	0.03320	0.02482	0.00009	0.00009	0.74230	0.74239	0.00009	0.07420	0.07428	—	8.03647	8.03647	0.00062	0.00132	0.00006	8.44614
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10278	0.08532	1.01291	1.29671	0.00215	0.00491	—	0.00491	0.00452	—	0.00452	—	195.856	195.856	0.00794	0.00159	—	196.528
Architectural Coatings	7.23547	7.23547	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00080	0.00054	0.01117	0.00851	0.00003	0.00003	0.17872	0.17875	0.00003	0.01788	0.01791	—	2.78219	2.78219	0.00022	0.00045	0.00032	2.92062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01876	0.01557	0.18486	0.23665	0.00039	0.00090	—	0.00090	0.00082	—	0.00082	—	32.4261	32.4261	0.00132	0.00026	—	32.5374
Architectural Coatings	1.32047	1.32047	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00015	0.00010	0.00204	0.00155	0.00001	0.00001	0.03262	0.03262	0.00001	0.00326	0.00327	—	0.46062	0.46062	0.00004	0.00007	0.00005	0.48354
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15256	0.11817	0.09524	2.44713	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	907.262	907.262	0.00529	0.00529	0.43626	909.407
Vendor	0.00453	0.00275	0.08704	0.03713	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	80.8300	80.8300	0.00160	0.01231	0.02315	84.5619
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15080	0.11464	0.09877	1.94624	0.00000	0.00000	1.04568	1.04568	0.00000	0.24510	0.24510	—	841.606	841.606	0.00705	0.00529	0.01129	843.370
Vendor	0.00427	0.00249	0.09221	0.03827	0.00090	0.00090	0.03422	0.03512	0.00090	0.00946	0.01035	—	80.9375	80.9375	0.00160	0.01231	0.00060	84.6468
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05191	0.03993	0.03379	0.70037	0.00000	0.00000	0.33786	0.33786	0.00000	0.07878	0.07878	—	298.051	298.051	0.00246	0.00184	0.06566	298.728
Vendor	0.00152	0.00093	0.03163	0.01312	0.00031	0.00031	0.01119	0.01151	0.00031	0.00311	0.00343	—	28.1718	28.1718	0.00056	0.00429	0.00349	29.4671
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00947	0.00729	0.00617	0.12782	0.00000	0.00000	0.06166	0.06166	0.00000	0.01438	0.01438	—	49.3458	49.3458	0.00041	0.00031	0.01087	49.4578

Vendor	0.00028	0.00017	0.00577	0.00239	0.00006	0.00006	0.00204	0.00210	0.00006	0.00057	0.00063	—	4.66416	4.66416	0.00009	0.00071	0.00058	4.87862
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	18.3214	17.2033	10.4774	119.386	0.32012	0.14484	34.3126	34.4575	0.13588	8.70516	8.84104	—	32,631.1	32,631.1	1.20708	1.37742	13.5553	33,085.3
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Strip Mall	6.06207	5.66020	3.65351	43.0125	0.11877	0.05315	12.7994	12.8525	0.04987	3.24722	3.29709	—	12,106.1	12,106.1	0.41794	0.49016	5.05643	12,267.7
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	6.15273	5.74485	3.70815	43.6558	0.12055	0.05394	12.9908	13.0447	0.05062	3.29578	3.34640	—	12,287.1	12,287.1	0.42419	0.49749	5.13205	12,451.1
Industrial Park	2.73844	2.55690	1.65041	19.4302	0.05365	0.02401	5.78190	5.80591	0.02253	1.46688	1.48941	—	5,468.72	5,468.72	0.18880	0.22142	2.28416	5,541.71
General Office Building	1.70199	1.58917	1.02576	12.0763	0.03335	0.01492	3.59357	3.60849	0.01400	0.91169	0.92570	—	3,398.92	3,398.92	0.11734	0.13762	1.41965	3,444.28

Hotel	2.88886	2.69735	1.74107	20.4975	0.05660	0.02533	6.09949	6.12482	0.02377	1.54745	1.57122	—	5,769.11	5,769.11	0.19917	0.23359	2.40962	5,846.11
Regional Shopping Center	3.61641	3.44725	1.76633	17.8942	0.04242	0.02015	4.43690	4.45705	0.01888	1.12565	1.14453	—	4,326.14	4,326.14	0.20830	0.21630	1.75281	4,397.56
Library	2.10792	1.96818	1.27041	14.9564	0.04130	0.01848	4.45063	4.46911	0.01734	1.12913	1.14647	—	4,209.56	4,209.56	0.14533	0.17044	1.75824	4,265.74
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Heavy Industry	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	43.5898	40.8672	25.2930	290.909	0.78677	0.35483	84.4653	84.8201	0.33290	21.4290	21.7618	—	80,196.8	80,196.8	2.90815	3.34445	33.3683	81,299.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	17.8925	16.7452	11.7359	110.130	0.30166	0.14498	34.3126	34.4576	0.13601	8.70516	8.84117	—	30,764.4	30,764.4	1.31559	1.46610	0.35152	31,234.6
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Strip Mall	5.91934	5.50950	4.09400	39.1041	0.11188	0.05319	12.7994	12.8526	0.04992	3.24722	3.29713	—	11,408.6	11,408.6	0.45168	0.52126	0.13112	11,575.3
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	6.00787	5.59190	4.15523	39.6889	0.11355	0.05399	12.9908	13.0448	0.05066	3.29578	3.34644	—	11,579.2	11,579.2	0.45844	0.52906	0.13309	11,748.4
Industrial Park	2.67397	2.48883	1.84940	17.6646	0.05054	0.02403	5.78190	5.80593	0.02255	1.46688	1.48942	—	5,153.63	5,153.63	0.20404	0.23547	0.05923	5,228.96
General Office Building	1.66192	1.54685	1.14944	10.9789	0.03141	0.01493	3.59357	3.60850	0.01401	0.91169	0.92571	—	3,203.09	3,203.09	0.12681	0.14635	0.03681	3,249.91

Hotel	2.82084	2.62553	1.95098	18.6349	0.05331	0.02535	6.09949	6.12484	0.02379	1.54745	1.57124	—	5,436.72	5,436.72	0.21525	0.24841	0.06249	5,516.18
Regional Shopping Center	3.53304	3.35539	1.97588	17.4335	0.04005	0.02018	4.43690	4.45708	0.01891	1.12565	1.14456	—	4,086.67	4,086.67	0.23321	0.23097	0.04545	4,161.37
Library	2.05829	1.91578	1.42358	13.5974	0.03890	0.01850	4.45063	4.46912	0.01736	1.12913	1.14649	—	3,967.02	3,967.02	0.15706	0.18126	0.04559	4,025.00
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Heavy Industry	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	42.5678	39.7790	28.3344	267.232	0.74131	0.35514	84.4653	84.8204	0.33320	21.4290	21.7622	—	75,599.3	75,599.3	3.16209	3.55888	0.86531	76,739.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	3.23743	3.03026	2.07531	20.1317	0.05576	0.02644	5.80893	5.83537	0.02481	1.47541	1.50022	—	5,158.45	5,158.45	0.21112	0.23846	0.96905	5,235.76
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Strip Mall	1.07159	0.99743	0.72470	7.18129	0.02068	0.00970	2.16686	2.17656	0.00911	0.55036	0.55946	—	1,913.17	1,913.17	0.07269	0.08485	0.36148	1,940.64
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	1.08762	1.01235	0.73554	7.28869	0.02099	0.00985	2.19926	2.20911	0.00924	0.55859	0.56783	—	1,941.78	1,941.78	0.07378	0.08612	0.36688	1,969.66
Industrial Park	0.48407	0.45057	0.32737	3.24403	0.00934	0.00438	0.97884	0.98322	0.00411	0.24862	0.25273	—	864.244	864.244	0.03284	0.03833	0.16329	876.650
General Office Building	0.30086	0.28004	0.20347	2.01623	0.00581	0.00272	0.60837	0.61109	0.00256	0.15452	0.15708	—	537.145	537.145	0.02041	0.02382	0.10149	544.856
Hotel	0.51066	0.47532	0.34535	3.42222	0.00986	0.00462	1.03261	1.03723	0.00434	0.26227	0.26661	—	911.715	911.715	0.03464	0.04044	0.17226	924.803

Regiona Shopping Center	0.63218	0.60180	0.33724	2.99900	0.00688	0.00345	0.69479	0.69825	0.00323	0.17647	0.17971	—	636.877	636.877	0.03617	0.03590	0.11591	648.596
Library	0.37262	0.34683	0.25200	2.49710	0.00719	0.00337	0.75346	0.75684	0.00317	0.19137	0.19454	—	665.253	665.253	0.02528	0.02951	0.12569	674.803
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Heavy Industry	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	7.69703	7.19460	5.00099	48.7802	0.13652	0.06455	14.2431	14.3077	0.06056	3.61761	3.67818	—	12,628.6	12,628.6	0.50691	0.57743	2.37605	12,815.8

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	18.3214	17.2033	10.4774	119.386	0.32012	0.14484	34.3126	34.4575	0.13588	8.70516	8.84104	—	32,631.1	32,631.1	1.20708	1.37742	13.5553	33,085.3
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Strip Mall	6.06207	5.66020	3.65351	43.0125	0.11877	0.05315	12.7994	12.8525	0.04987	3.24722	3.29709	—	12,106.1	12,106.1	0.41794	0.49016	5.05643	12,267.7
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	6.15273	5.74485	3.70815	43.6558	0.12055	0.05394	12.9908	13.0447	0.05062	3.29578	3.34640	—	12,287.1	12,287.1	0.42419	0.49749	5.13205	12,451.1
Industrial Park	2.73844	2.55690	1.65041	19.4302	0.05365	0.02401	5.78190	5.80591	0.02253	1.46688	1.48941	—	5,468.72	5,468.72	0.18880	0.22142	2.28416	5,541.71

General Office Building	1.70199	1.58917	1.02576	12.0763	0.03335	0.01492	3.59357	3.60849	0.01400	0.91169	0.92570	—	3,398.92	3,398.92	0.11734	0.13762	1.41965	3,444.28
Hotel	2.88886	2.69735	1.74107	20.4975	0.05660	0.02533	6.09949	6.12482	0.02377	1.54745	1.57122	—	5,769.11	5,769.11	0.19917	0.23359	2.40962	5,846.11
Regional Shopping Center	3.61641	3.44725	1.76633	17.8942	0.04242	0.02015	4.43690	4.45705	0.01888	1.12565	1.14453	—	4,326.14	4,326.14	0.20830	0.21630	1.75281	4,397.56
Library	2.10792	1.96818	1.27041	14.9564	0.04130	0.01848	4.45063	4.46911	0.01734	1.12913	1.14647	—	4,209.56	4,209.56	0.14533	0.17044	1.75824	4,265.74
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Heavy Industry	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	43.5898	40.8672	25.2930	290.909	0.78677	0.35483	84.4653	84.8201	0.33290	21.4290	21.7618	—	80,196.8	80,196.8	2.90815	3.34445	33.3683	81,299.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	17.8925	16.7452	11.7359	110.130	0.30166	0.14498	34.3126	34.4576	0.13601	8.70516	8.84117	—	30,764.4	30,764.4	1.31559	1.46610	0.35152	31,234.6
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Strip Mall	5.91934	5.50950	4.09400	39.1041	0.11188	0.05319	12.7994	12.8526	0.04992	3.24722	3.29713	—	11,408.6	11,408.6	0.45168	0.52126	0.13112	11,575.3
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	6.00787	5.59190	4.15523	39.6889	0.11355	0.05399	12.9908	13.0448	0.05066	3.29578	3.34644	—	11,579.2	11,579.2	0.45844	0.52906	0.13309	11,748.4
Industrial Park	2.67397	2.48883	1.84940	17.6646	0.05054	0.02403	5.78190	5.80593	0.02255	1.46688	1.48942	—	5,153.63	5,153.63	0.20404	0.23547	0.05923	5,228.96

General Office Building	1.66192	1.54685	1.14944	10.9789	0.03141	0.01493	3.59357	3.60850	0.01401	0.91169	0.92571	—	3,203.09	3,203.09	0.12681	0.14635	0.03681	3,249.91
Hotel	2.82084	2.62553	1.95098	18.6349	0.05331	0.02535	6.09949	6.12484	0.02379	1.54745	1.57124	—	5,436.72	5,436.72	0.21525	0.24841	0.06249	5,516.18
Regional Shopping Center	3.53304	3.35539	1.97588	17.4335	0.04005	0.02018	4.43690	4.45708	0.01891	1.12565	1.14456	—	4,086.67	4,086.67	0.23321	0.23097	0.04545	4,161.37
Library	2.05829	1.91578	1.42358	13.5974	0.03890	0.01850	4.45063	4.46912	0.01736	1.12913	1.14649	—	3,967.02	3,967.02	0.15706	0.18126	0.04559	4,025.00
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Heavy Industry	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	42.5678	39.7790	28.3344	267.232	0.74131	0.35514	84.4653	84.8204	0.33320	21.4290	21.7622	—	75,599.3	75,599.3	3.16209	3.55888	0.86531	76,739.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	3.23743	3.03026	2.07531	20.1317	0.05576	0.02644	5.80893	5.83537	0.02481	1.47541	1.50022	—	5,158.45	5,158.45	0.21112	0.23846	0.96905	5,235.76
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Strip Mall	1.07159	0.99743	0.72470	7.18129	0.02068	0.00970	2.16686	2.17656	0.00911	0.55036	0.55946	—	1,913.17	1,913.17	0.07269	0.08485	0.36148	1,940.64
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	1.08762	1.01235	0.73554	7.28869	0.02099	0.00985	2.19926	2.20911	0.00924	0.55859	0.56783	—	1,941.78	1,941.78	0.07378	0.08612	0.36688	1,969.66
Industrial Park	0.48407	0.45057	0.32737	3.24403	0.00934	0.00438	0.97884	0.98322	0.00411	0.24862	0.25273	—	864.244	864.244	0.03284	0.03833	0.16329	876.650

General Office Building	0.30086	0.28004	0.20347	2.01623	0.00581	0.00272	0.60837	0.61109	0.00256	0.15452	0.15708	—	537.145	537.145	0.02041	0.02382	0.10149	544.856
Hotel	0.51066	0.47532	0.34535	3.42222	0.00986	0.00462	1.03261	1.03723	0.00434	0.26227	0.26661	—	911.715	911.715	0.03464	0.04044	0.17226	924.803
Regional Shopping Center	0.63218	0.60180	0.33724	2.99900	0.00688	0.00345	0.69479	0.69825	0.00323	0.17647	0.17971	—	636.877	636.877	0.03617	0.03590	0.11591	648.596
Library	0.37262	0.34683	0.25200	2.49710	0.00719	0.00337	0.75346	0.75684	0.00317	0.19137	0.19454	—	665.253	665.253	0.02528	0.02951	0.12569	674.803
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Heavy Industry	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	7.69703	7.19460	5.00099	48.7802	0.13652	0.06455	14.2431	14.3077	0.06056	3.61761	3.67818	—	12,628.6	12,628.6	0.50691	0.57743	2.37605	12,815.8

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	7,146.19	7,146.19	0.52034	0.06307	—	7,177.99
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	407.970	407.970	0.02971	0.00360	—	409.785

Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	283.089	283.089	0.02061	0.00250	—	284.349
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	5,043.45	5,043.45	0.36723	0.04451	—	5,065.89
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1,977.82	1,977.82	0.14401	0.01746	—	1,986.62
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	5,055.15	5,055.15	0.36809	0.04462	—	5,077.65
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	370.881	370.881	0.02701	0.00327	—	372.532
Library	—	—	—	—	—	—	—	—	—	—	—	—	170.785	170.785	0.01244	0.00151	—	171.545
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	785.369	785.369	0.05719	0.00693	—	788.865
Total	—	—	—	—	—	—	—	—	—	—	—	—	21,240.7	21,240.7	1.54662	0.18747	—	21,335.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	7,146.19	7,146.19	0.52034	0.06307	—	7,177.99
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	407.970	407.970	0.02971	0.00360	—	409.785

Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	283.089	283.089	0.02061	0.00250	—	284.349
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	5,043.45	5,043.45	0.36723	0.04451	—	5,065.89
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1,977.82	1,977.82	0.14401	0.01746	—	1,986.62
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	5,055.15	5,055.15	0.36809	0.04462	—	5,077.65
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	370.881	370.881	0.02701	0.00327	—	372.532
Library	—	—	—	—	—	—	—	—	—	—	—	—	170.785	170.785	0.01244	0.00151	—	171.545
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	785.369	785.369	0.05719	0.00693	—	788.865
Total	—	—	—	—	—	—	—	—	—	—	—	—	21,240.7	21,240.7	1.54662	0.18747	—	21,335.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,183.13	1,183.13	0.08615	0.01044	—	1,188.40
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	67.5440	67.5440	0.00492	0.00060	—	67.8446

Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	46.8686	46.8686	0.00341	0.00041	—	47.0772
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	835.000	835.000	0.06080	0.00737	—	838.717
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	327.451	327.451	0.02384	0.00289	—	328.908
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	836.938	836.938	0.06094	0.00739	—	840.662
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	61.4037	61.4037	0.00447	0.00054	—	61.6769
Library	—	—	—	—	—	—	—	—	—	—	—	—	28.2754	28.2754	0.00206	0.00025	—	28.4012
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	130.027	130.027	0.00947	0.00115	—	130.606
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,516.64	3,516.64	0.25606	0.03104	—	3,532.29

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	7,149.05	7,149.05	0.52055	0.06310	—	7,180.87
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	407.970	407.970	0.02971	0.00360	—	409.785
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	283.089	283.089	0.02061	0.00250	—	284.349
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	5,043.45	5,043.45	0.36723	0.04451	—	5,065.89
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1,977.82	1,977.82	0.14401	0.01746	—	1,986.62
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	5,055.15	5,055.15	0.36809	0.04462	—	5,077.65
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	370.881	370.881	0.02701	0.00327	—	372.532
Library	—	—	—	—	—	—	—	—	—	—	—	—	170.785	170.785	0.01244	0.00151	—	171.545
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	785.369	785.369	0.05719	0.00693	—	788.865
Total	—	—	—	—	—	—	—	—	—	—	—	—	21,243.6	21,243.6	1.54683	0.18749	—	21,338.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	7,149.05	7,149.05	0.52055	0.06310	—	7,180.87
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	407.970	407.970	0.02971	0.00360	—	409.785
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	283.089	283.089	0.02061	0.00250	—	284.349
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	5,043.45	5,043.45	0.36723	0.04451	—	5,065.89
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1,977.82	1,977.82	0.14401	0.01746	—	1,986.62
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	5,055.15	5,055.15	0.36809	0.04462	—	5,077.65
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	370.881	370.881	0.02701	0.00327	—	372.532
Library	—	—	—	—	—	—	—	—	—	—	—	—	170.785	170.785	0.01244	0.00151	—	171.545
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	785.369	785.369	0.05719	0.00693	—	788.865
Total	—	—	—	—	—	—	—	—	—	—	—	—	21,243.6	21,243.6	1.54683	0.18749	—	21,338.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,183.61	1,183.61	0.08618	0.01045	—	1,188.87
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	67.5440	67.5440	0.00492	0.00060	—	67.8446
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	46.8686	46.8686	0.00341	0.00041	—	47.0772
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	835.000	835.000	0.06080	0.00737	—	838.717
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	327.451	327.451	0.02384	0.00289	—	328.908
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	836.938	836.938	0.06094	0.00739	—	840.662
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	61.4037	61.4037	0.00447	0.00054	—	61.6769
Library	—	—	—	—	—	—	—	—	—	—	—	—	28.2754	28.2754	0.00206	0.00025	—	28.4012
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	130.027	130.027	0.00947	0.00115	—	130.606
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,517.11	3,517.11	0.25610	0.03104	—	3,532.77

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	1.07576	0.53788	9.19287	3.91186	0.05868	0.74325	—	0.74325	0.74325	—	0.74325	—	11,668.8	11,668.8	1.03268	0.02197	—	11,701.1
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	0.00480	0.00240	0.04365	0.03666	0.00026	0.00332	—	0.00332	0.00332	—	0.00332	—	52.0778	52.0778	0.00461	0.00010	—	52.2222
Fast Food Restaurant w/o Drive Thru	0.01959	0.00980	0.17811	0.14961	0.00107	0.01354	—	0.01354	0.01354	—	0.01354	—	212.516	212.516	0.01881	0.00040	—	213.106
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	0.15138	0.07569	1.37615	1.15597	0.00826	0.10459	—	0.10459	0.10459	—	0.10459	—	1,641.98	1,641.98	0.14531	0.00309	—	1,646.54
General Office Building	0.05936	0.02968	0.53967	0.45332	0.00324	0.04101	—	0.04101	0.04101	—	0.04101	—	643.915	643.915	0.05699	0.00121	—	645.701
Hotel	0.24928	0.12464	2.26616	1.90358	0.01360	0.17223	—	0.17223	0.17223	—	0.17223	—	2,703.91	2,703.91	0.23929	0.00509	—	2,711.41
Regional Shopping Center	0.00436	0.00218	0.03968	0.03333	0.00024	0.00302	—	0.00302	0.00302	—	0.00302	—	47.3435	47.3435	0.00419	0.00009	—	47.4748
Library	0.01483	0.00741	0.13478	0.11321	0.00081	0.01024	—	0.01024	0.01024	—	0.01024	—	160.813	160.813	0.01423	0.00030	—	161.259
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

General Heavy Industry	0.06818	0.03409	0.61979	0.52062	0.00372	0.04710	—	0.04710	0.04710	—	0.04710	—	739.511	739.511	0.06545	0.00139	—	741.562
Total	1.64754	0.82377	14.3909	8.27817	0.08987	1.13830	—	1.13830	1.13830	—	1.13830	—	17,870.8	17,870.8	1.58156	0.03365	—	17,920.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	1.07576	0.53788	9.19287	3.91186	0.05868	0.74325	—	0.74325	0.74325	—	0.74325	—	11,668.8	11,668.8	1.03268	0.02197	—	11,701.1
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	0.00480	0.00240	0.04365	0.03666	0.00026	0.00332	—	0.00332	0.00332	—	0.00332	—	52.0778	52.0778	0.00461	0.00010	—	52.2222
Fast Food Restaurant w/o Drive Thru	0.01959	0.00980	0.17811	0.14961	0.00107	0.01354	—	0.01354	0.01354	—	0.01354	—	212.516	212.516	0.01881	0.00040	—	213.106
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	0.15138	0.07569	1.37615	1.15597	0.00826	0.10459	—	0.10459	0.10459	—	0.10459	—	1,641.98	1,641.98	0.14531	0.00309	—	1,646.54
General Office Building	0.05936	0.02968	0.53967	0.45332	0.00324	0.04101	—	0.04101	0.04101	—	0.04101	—	643.915	643.915	0.05699	0.00121	—	645.701
Hotel	0.24928	0.12464	2.26616	1.90358	0.01360	0.17223	—	0.17223	0.17223	—	0.17223	—	2,703.91	2,703.91	0.23929	0.00509	—	2,711.41
Regional Shopping Center	0.00436	0.00218	0.03968	0.03333	0.00024	0.00302	—	0.00302	0.00302	—	0.00302	—	47.3435	47.3435	0.00419	0.00009	—	47.4748
Library	0.01483	0.00741	0.13478	0.11321	0.00081	0.01024	—	0.01024	0.01024	—	0.01024	—	160.813	160.813	0.01423	0.00030	—	161.259
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

General Heavy Industry	0.06818	0.03409	0.61979	0.52062	0.00372	0.04710	—	0.04710	0.04710	—	0.04710	—	739.511	739.511	0.06545	0.00139	—	741.562
Total	1.64754	0.82377	14.3909	8.27817	0.08987	1.13830	—	1.13830	1.13830	—	1.13830	—	17,870.8	17,870.8	1.58156	0.03365	—	17,920.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.19633	0.09816	1.67770	0.71391	0.01071	0.13564	—	0.13564	0.13564	—	0.13564	—	1,931.89	1,931.89	0.17097	0.00364	—	1,937.25
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	0.00088	0.00044	0.00797	0.00669	0.00005	0.00061	—	0.00061	0.00061	—	0.00061	—	8.62207	8.62207	0.00076	0.00002	—	8.64599
Fast Food Restaurant w/o Drive Thru	0.00358	0.00179	0.03251	0.02730	0.00020	0.00247	—	0.00247	0.00247	—	0.00247	—	35.1845	35.1845	0.00311	0.00007	—	35.2821
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	0.02763	0.01381	0.25115	0.21096	0.00151	0.01909	—	0.01909	0.01909	—	0.01909	—	271.849	271.849	0.02406	0.00051	—	272.603
General Office Building	0.01083	0.00542	0.09849	0.08273	0.00059	0.00749	—	0.00749	0.00749	—	0.00749	—	106.607	106.607	0.00943	0.00020	—	106.903
Hotel	0.04549	0.02275	0.41357	0.34740	0.00248	0.03143	—	0.03143	0.03143	—	0.03143	—	447.663	447.663	0.03962	0.00084	—	448.905
Regional Shopping Center	0.00080	0.00040	0.00724	0.00608	0.00004	0.00055	—	0.00055	0.00055	—	0.00055	—	7.83825	7.83825	0.00069	0.00001	—	7.85999
Library	0.00271	0.00135	0.02460	0.02066	0.00015	0.00187	—	0.00187	0.00187	—	0.00187	—	26.6244	26.6244	0.00236	0.00005	—	26.6982
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

General Heavy Industry	0.01244	0.00622	0.11311	0.09501	0.00068	0.00860	—	0.00860	0.00860	—	0.00860	—	122.435	122.435	0.01084	0.00023	—	122.774
Total	0.30068	0.15034	2.62633	1.51077	0.01640	0.20774	—	0.20774	0.20774	—	0.20774	—	2,958.72	2,958.72	0.26185	0.00557	—	2,966.92

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	0.00480	0.00240	0.04365	0.03666	0.00026	0.00332	—	0.00332	0.00332	—	0.00332	—	52.0778	52.0778	0.00461	0.00010	—	52.2222
Fast Food Restaurant w/o Drive Thru	0.01959	0.00980	0.17811	0.14961	0.00107	0.01354	—	0.01354	0.01354	—	0.01354	—	212.516	212.516	0.01881	0.00040	—	213.106
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	0.15138	0.07569	1.37615	1.15597	0.00826	0.10459	—	0.10459	0.10459	—	0.10459	—	1,641.98	1,641.98	0.14531	0.00309	—	1,646.54
General Office Building	0.05936	0.02968	0.53967	0.45332	0.00324	0.04101	—	0.04101	0.04101	—	0.04101	—	643.915	643.915	0.05699	0.00121	—	645.701
Hotel	0.24928	0.12464	2.26616	1.90358	0.01360	0.17223	—	0.17223	0.17223	—	0.17223	—	2,703.91	2,703.91	0.23929	0.00509	—	2,711.41

Regional Shopping	0.00436	0.00218	0.03968	0.03333	0.00024	0.00302	—	0.00302	0.00302	—	0.00302	—	47.3435	47.3435	0.00419	0.00009	—	47.4748
Library	0.01483	0.00741	0.13478	0.11321	0.00081	0.01024	—	0.01024	0.01024	—	0.01024	—	160.813	160.813	0.01423	0.00030	—	161.259
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	0.06818	0.03409	0.61979	0.52062	0.00372	0.04710	—	0.04710	0.04710	—	0.04710	—	739.511	739.511	0.06545	0.00139	—	741.562
Total	0.57178	0.28589	5.19799	4.36631	0.03119	0.39505	—	0.39505	0.39505	—	0.39505	—	6,202.07	6,202.07	0.54888	0.01168	—	6,219.27
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	0.00480	0.00240	0.04365	0.03666	0.00026	0.00332	—	0.00332	0.00332	—	0.00332	—	52.0778	52.0778	0.00461	0.00010	—	52.2222
Fast Food Restaurant w/o Drive Thru	0.01959	0.00980	0.17811	0.14961	0.00107	0.01354	—	0.01354	0.01354	—	0.01354	—	212.516	212.516	0.01881	0.00040	—	213.106
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	0.15138	0.07569	1.37615	1.15597	0.00826	0.10459	—	0.10459	0.10459	—	0.10459	—	1,641.98	1,641.98	0.14531	0.00309	—	1,646.54
General Office Building	0.05936	0.02968	0.53967	0.45332	0.00324	0.04101	—	0.04101	0.04101	—	0.04101	—	643.915	643.915	0.05699	0.00121	—	645.701
Hotel	0.24928	0.12464	2.26616	1.90358	0.01360	0.17223	—	0.17223	0.17223	—	0.17223	—	2,703.91	2,703.91	0.23929	0.00509	—	2,711.41

Regional	0.00436	0.00218	0.03968	0.03333	0.00024	0.00302	—	0.00302	0.00302	—	0.00302	—	47.3435	47.3435	0.00419	0.00009	—	47.4748
Library	0.01483	0.00741	0.13478	0.11321	0.00081	0.01024	—	0.01024	0.01024	—	0.01024	—	160.813	160.813	0.01423	0.00030	—	161.259
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	0.06818	0.03409	0.61979	0.52062	0.00372	0.04710	—	0.04710	0.04710	—	0.04710	—	739.511	739.511	0.06545	0.00139	—	741.562
Total	0.57178	0.28589	5.19799	4.36631	0.03119	0.39505	—	0.39505	0.39505	—	0.39505	—	6,202.07	6,202.07	0.54888	0.01168	—	6,219.27
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	0.00088	0.00044	0.00797	0.00669	0.00005	0.00061	—	0.00061	0.00061	—	0.00061	—	8.62207	8.62207	0.00076	0.00002	—	8.64599
Fast Food Restaurant w/o Drive Thru	0.00358	0.00179	0.03251	0.02730	0.00020	0.00247	—	0.00247	0.00247	—	0.00247	—	35.1845	35.1845	0.00311	0.00007	—	35.2821
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	0.02763	0.01381	0.25115	0.21096	0.00151	0.01909	—	0.01909	0.01909	—	0.01909	—	271.849	271.849	0.02406	0.00051	—	272.603
General Office Building	0.01083	0.00542	0.09849	0.08273	0.00059	0.00749	—	0.00749	0.00749	—	0.00749	—	106.607	106.607	0.00943	0.00020	—	106.903
Hotel	0.04549	0.02275	0.41357	0.34740	0.00248	0.03143	—	0.03143	0.03143	—	0.03143	—	447.663	447.663	0.03962	0.00084	—	448.905
Regional Shopping Center	0.00080	0.00040	0.00724	0.00608	0.00004	0.00055	—	0.00055	0.00055	—	0.00055	—	7.83825	7.83825	0.00069	0.00001	—	7.85999

Library	0.00271	0.00135	0.02460	0.02066	0.00015	0.00187	—	0.00187	0.00187	—	0.00187	—	26.6244	26.6244	0.00236	0.00005	—	26.6982
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	0.01244	0.00622	0.11311	0.09501	0.00068	0.00860	—	0.00860	0.00860	—	0.00860	—	122.435	122.435	0.01084	0.00023	—	122.774
Total	0.10435	0.05217	0.94863	0.79685	0.00569	0.07210	—	0.07210	0.07210	—	0.07210	—	1,026.82	1,026.82	0.09087	0.00193	—	1,029.67

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	54.7296	54.7296	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	5.08982	5.08982	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	14.9723	14.0193	1.15434	128.786	0.00617	0.10667	—	0.10667	0.08069	—	0.08069	—	396.466	396.466	0.01659	0.00333	—	397.874
Total	74.7917	73.8388	1.15434	128.786	0.00617	0.10667	—	0.10667	0.08069	—	0.08069	—	396.466	396.466	0.01659	0.00333	—	397.874
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	54.7296	54.7296	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	5.08982	5.08982	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	59.8195	59.8195	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	9.98816	9.98816	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.92889	0.92889	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.34751	1.26174	0.10389	11.5908	0.00056	0.00960	—	0.00960	0.00726	—	0.00726	—	32.3701	32.3701	0.00135	0.00027	—	32.4851
Total	12.2646	12.1788	0.10389	11.5908	0.00056	0.00960	—	0.00960	0.00726	—	0.00726	—	32.3701	32.3701	0.00135	0.00027	—	32.4851

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	54.7296	54.7296	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	5.08982	5.08982	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	14.9723	14.0193	1.15434	128.786	0.00617	0.10667	—	0.10667	0.08069	—	0.08069	—	396.466	396.466	0.01659	0.00333	—	397.874
Total	74.7917	73.8388	1.15434	128.786	0.00617	0.10667	—	0.10667	0.08069	—	0.08069	—	396.466	396.466	0.01659	0.00333	—	397.874
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	54.7296	54.7296	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	5.08982	5.08982	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	59.8195	59.8195	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	9.98816	9.98816	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.92889	0.92889	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.34751	1.26174	0.10389	11.5908	0.00056	0.00960	—	0.00960	0.00726	—	0.00726	—	32.3701	32.3701	0.00135	0.00027	—	32.4851
Total	12.2646	12.1788	0.10389	11.5908	0.00056	0.00960	—	0.00960	0.00726	—	0.00726	—	32.3701	32.3701	0.00135	0.00027	—	32.4851

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Library	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Library	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	178.232	530.996	709.228	18.3143	0.43891	—	1,297.88
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Library	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	178.232	530.996	709.228	18.3143	0.43891	—	1,297.88

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Library	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Library	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	1,076.53	3,207.25	4,283.78	110.620	2.65104	—	7,839.28
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	178.232	530.996	709.228	18.3143	0.43891	—	1,297.88
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Regional Shopping	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Library	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	178.232	530.996	709.228	18.3143	0.43891	—	1,297.88

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	647.438	0.00000	647.438	64.7091	0.00000	—	2,265.16
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.6742	0.00000	18.6742	1.86642	0.00000	—	65.3348
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	43.4559	0.00000	43.4559	4.34327	0.00000	—	152.038

City Park	—	—	—	—	—	—	—	—	—	—	—	0.67274	0.00000	0.67274	0.06724	0.00000	—	2.35370
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	170.412	0.00000	170.412	17.0321	0.00000	—	596.215
General Office Building	—	—	—	—	—	—	—	—	—	—	—	50.1213	0.00000	50.1213	5.00944	0.00000	—	175.357
Hotel	—	—	—	—	—	—	—	—	—	—	—	70.8166	0.00000	70.8166	7.07786	0.00000	—	247.763
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	16.9766	0.00000	16.9766	1.69675	0.00000	—	59.3953
Library	—	—	—	—	—	—	—	—	—	—	—	7.04769	0.00000	7.04769	0.70439	0.00000	—	24.6575
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	43.6390	0.00000	43.6390	4.36156	0.00000	—	152.678
Total	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	647.438	0.00000	647.438	64.7091	0.00000	—	2,265.16
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.6742	0.00000	18.6742	1.86642	0.00000	—	65.3348
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	43.4559	0.00000	43.4559	4.34327	0.00000	—	152.038

City Park	—	—	—	—	—	—	—	—	—	—	—	0.67274	0.00000	0.67274	0.06724	0.00000	—	2.35370
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	170.412	0.00000	170.412	17.0321	0.00000	—	596.215
General Office Building	—	—	—	—	—	—	—	—	—	—	—	50.1213	0.00000	50.1213	5.00944	0.00000	—	175.357
Hotel	—	—	—	—	—	—	—	—	—	—	—	70.8166	0.00000	70.8166	7.07786	0.00000	—	247.763
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	16.9766	0.00000	16.9766	1.69675	0.00000	—	59.3953
Library	—	—	—	—	—	—	—	—	—	—	—	7.04769	0.00000	7.04769	0.70439	0.00000	—	24.6575
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	43.6390	0.00000	43.6390	4.36156	0.00000	—	152.678
Total	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	107.191	0.00000	107.191	10.7133	0.00000	—	375.024
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.09173	0.00000	3.09173	0.30901	0.00000	—	10.8169
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	7.19463	0.00000	7.19463	0.71908	0.00000	—	25.1716
City Park	—	—	—	—	—	—	—	—	—	—	—	0.11138	0.00000	0.11138	0.01113	0.00000	—	0.38968

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	28.2137	0.00000	28.2137	2.81986	0.00000	—	98.7102
General Office Building	—	—	—	—	—	—	—	—	—	—	—	8.29815	0.00000	8.29815	0.82937	0.00000	—	29.0324
Hotel	—	—	—	—	—	—	—	—	—	—	—	11.7245	0.00000	11.7245	1.17182	0.00000	—	41.0200
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	2.81067	0.00000	2.81067	0.28092	0.00000	—	9.83356
Library	—	—	—	—	—	—	—	—	—	—	—	1.16683	0.00000	1.16683	0.11662	0.00000	—	4.08233
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	7.22493	0.00000	7.22493	0.72211	0.00000	—	25.2776
Total	—	—	—	—	—	—	—	—	—	—	—	177.027	0.00000	177.027	17.6932	0.00000	—	619.358

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	647.438	0.00000	647.438	64.7091	0.00000	—	2,265.16
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.6742	0.00000	18.6742	1.86642	0.00000	—	65.3348

Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	43.4559	0.00000	43.4559	4.34327	0.00000	—	152.038
City Park	—	—	—	—	—	—	—	—	—	—	—	0.67274	0.00000	0.67274	0.06724	0.00000	—	2.35370
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	170.412	0.00000	170.412	17.0321	0.00000	—	596.215
General Office Building	—	—	—	—	—	—	—	—	—	—	—	50.1213	0.00000	50.1213	5.00944	0.00000	—	175.357
Hotel	—	—	—	—	—	—	—	—	—	—	—	70.8166	0.00000	70.8166	7.07786	0.00000	—	247.763
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	16.9766	0.00000	16.9766	1.69675	0.00000	—	59.3953
Library	—	—	—	—	—	—	—	—	—	—	—	7.04769	0.00000	7.04769	0.70439	0.00000	—	24.6575
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	43.6390	0.00000	43.6390	4.36156	0.00000	—	152.678
Total	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	647.438	0.00000	647.438	64.7091	0.00000	—	2,265.16
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.6742	0.00000	18.6742	1.86642	0.00000	—	65.3348

Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	43.4559	0.00000	43.4559	4.34327	0.00000	—	152.038
City Park	—	—	—	—	—	—	—	—	—	—	—	0.67274	0.00000	0.67274	0.06724	0.00000	—	2.35370
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	170.412	0.00000	170.412	17.0321	0.00000	—	596.215
General Office Building	—	—	—	—	—	—	—	—	—	—	—	50.1213	0.00000	50.1213	5.00944	0.00000	—	175.357
Hotel	—	—	—	—	—	—	—	—	—	—	—	70.8166	0.00000	70.8166	7.07786	0.00000	—	247.763
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	16.9766	0.00000	16.9766	1.69675	0.00000	—	59.3953
Library	—	—	—	—	—	—	—	—	—	—	—	7.04769	0.00000	7.04769	0.70439	0.00000	—	24.6575
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	43.6390	0.00000	43.6390	4.36156	0.00000	—	152.678
Total	—	—	—	—	—	—	—	—	—	—	—	1,069.25	0.00000	1,069.25	106.868	0.00000	—	3,740.96
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	107.191	0.00000	107.191	10.7133	0.00000	—	375.024
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.09173	0.00000	3.09173	0.30901	0.00000	—	10.8169

Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	7.19463	0.00000	7.19463	0.71908	0.00000	—	25.1716
City Park	—	—	—	—	—	—	—	—	—	—	—	0.11138	0.00000	0.11138	0.01113	0.00000	—	0.38968
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	28.2137	0.00000	28.2137	2.81986	0.00000	—	98.7102
General Office Building	—	—	—	—	—	—	—	—	—	—	—	8.29815	0.00000	8.29815	0.82937	0.00000	—	29.0324
Hotel	—	—	—	—	—	—	—	—	—	—	—	11.7245	0.00000	11.7245	1.17182	0.00000	—	41.0200
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	2.81067	0.00000	2.81067	0.28092	0.00000	—	9.83356
Library	—	—	—	—	—	—	—	—	—	—	—	1.16683	0.00000	1.16683	0.11662	0.00000	—	4.08233
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	7.22493	0.00000	7.22493	0.72211	0.00000	—	25.2776
Total	—	—	—	—	—	—	—	—	—	—	—	177.027	0.00000	177.027	17.6932	0.00000	—	619.358

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.2075	12.2075
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20553	0.20553
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.9428	10.9428
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66.3776	66.3776
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24320	0.24320
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	544.763	544.763
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14402	0.14402
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05485	0.05485
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.9979	16.9979
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.2075	12.2075
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20553	0.20553
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.9428	10.9428
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66.3776	66.3776
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24320	0.24320
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	544.763	544.763
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14402	0.14402
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05485	0.05485
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.9979	16.9979
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02109	2.02109
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03403	0.03403

Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.81170	1.81170
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.9896	10.9896
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04026	0.04026
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	90.1917	90.1917
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02384	0.02384
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00908	0.00908
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.81419	2.81419
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107.935	107.935

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.2075	12.2075

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20553	0.20553
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.9428	10.9428
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66.3776	66.3776
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24320	0.24320
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	544.763	544.763
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14402	0.14402
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05485	0.05485
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.9979	16.9979
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.2075	12.2075
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20553	0.20553

Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.9428	10.9428
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66.3776	66.3776
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24320	0.24320
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	544.763	544.763
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14402	0.14402
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05485	0.05485
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.9979	16.9979
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	651.936	651.936
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02109	2.02109
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03403	0.03403
Fast Food Restaurant w/o Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.81170	1.81170
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.9896	10.9896
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04026	0.04026
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	90.1917	90.1917
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02384	0.02384
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00908	0.00908
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.81419	2.81419
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107.935	107.935

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/3/2028	6/28/2041	5.00000	3,520.00	—
Linear, Grading & Excavation	Linear, Grading & Excavation	1/3/2028	6/28/2041	5.00000	3,520.00	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	1/3/2028	6/28/2041	5.00000	3,520.00	—
Linear, Paving	Linear, Paving	1/3/2028	6/28/2041	5.00000	3,520.00	—
Site Preparation	Site Preparation	1/3/2028	6/27/2042	5.00000	3,780.00	—
Grading	Grading	1/3/2028	6/27/2042	5.00000	3,780.00	—
Building Construction	Building Construction	3/6/2028	6/27/2042	5.00000	3,735.00	—
Paving	Paving	1/3/2028	6/27/2042	5.00000	3,780.00	—
Architectural Coating	Architectural Coating	1/1/2029	6/27/2042	5.00000	3,520.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.000000	8.00000	87.0000	0.43000
Linear, Grubbing & Land Clearing	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Linear, Grubbing & Land Clearing	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Linear, Grading & Excavation	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000

Linear, Grading & Excavation	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.000000	8.00000	150.000	0.36000
Linear, Grading & Excavation	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.000000	8.00000	37.0000	0.48000
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.000000	8.00000	96.0000	0.40000
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Linear, Paving	Pavers	Diesel	Average	1.000000	8.00000	81.0000	0.42000
Linear, Paving	Paving Equipment	Diesel	Average	1.000000	8.00000	89.0000	0.36000
Linear, Paving	Rollers	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Site Preparation	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Grading	Rollers	Diesel	Average	1.000000	4.00000	36.0000	0.38000
Grading	Crawler Tractors	Diesel	Average	1.000000	8.00000	87.0000	0.43000
Grading	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Grading	Rubber Tired Loaders	Diesel	Average	1.000000	8.00000	150.000	0.36000

Grading	Scrapers	Diesel	Average	1.000000	4.00000	423.000	0.48000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	1.000000	8.00000	82.0000	0.20000
Building Construction	Welders	Diesel	Average	2.00000	8.00000	46.0000	0.45000
Building Construction	Rough Terrain Forklifts	Diesel	Average	2.00000	8.00000	96.0000	0.40000
Building Construction	Aerial Lifts	Diesel	Average	2.00000	8.00000	46.0000	0.31000
Paving	Pavers	Diesel	Average	1.000000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	2.00000	6.00000	37.0000	0.48000
Architectural Coating	Aerial Lifts	Diesel	Average	2.00000	8.00000	46.0000	0.31000

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.000000	8.00000	87.0000	0.43000
Linear, Grubbing & Land Clearing	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Linear, Grubbing & Land Clearing	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Linear, Grading & Excavation	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Linear, Grading & Excavation	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.000000	8.00000	150.000	0.36000
Linear, Grading & Excavation	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.000000	8.00000	37.0000	0.48000

Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.000000	8.00000	8.00000	0.43000
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.000000	8.00000	96.0000	0.40000
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Linear, Paving	Pavers	Diesel	Average	1.000000	8.00000	81.0000	0.42000
Linear, Paving	Paving Equipment	Diesel	Average	1.000000	8.00000	89.0000	0.36000
Linear, Paving	Rollers	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Site Preparation	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Grading	Rollers	Diesel	Average	1.000000	4.00000	36.0000	0.38000
Grading	Crawler Tractors	Diesel	Average	1.000000	8.00000	87.0000	0.43000
Grading	Skid Steer Loaders	Diesel	Average	2.00000	8.00000	71.0000	0.37000
Grading	Rubber Tired Loaders	Diesel	Average	1.000000	8.00000	150.000	0.36000
Grading	Scrapers	Diesel	Average	1.000000	4.00000	423.000	0.48000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	1.000000	8.00000	82.0000	0.20000
Building Construction	Welders	Diesel	Average	2.00000	8.00000	46.0000	0.45000
Building Construction	Rough Terrain Forklifts	Diesel	Average	2.00000	8.00000	96.0000	0.40000
Building Construction	Aerial Lifts	Diesel	Average	2.00000	8.00000	46.0000	0.31000

Paving	Pavers	Diesel	Average	1.000000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	2.00000	6.00000	37.0000	0.48000
Architectural Coating	Aerial Lifts	Diesel	Average	2.00000	8.00000	46.0000	0.31000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00000	10.2000	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	4.00000	20.0000	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	2.00000	1.000000	HHDT
Linear, Grading & Excavation	Worker	40.0000	18.5000	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	4.00000	10.2000	HHDT,MHDT
Linear, Grading & Excavation	Hauling	20.0000	20.0000	HHDT
Linear, Grading & Excavation	Onsite truck	2.00000	2.00000	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Worker	50.0000	18.5000	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	8.00000	10.2000	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00000	20.0000	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	2.00000	1.000000	HHDT
Linear, Paving	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Linear, Paving	Vendor	4.00000	10.2000	HHDT,MHDT
Linear, Paving	Hauling	0.00000	20.0000	HHDT
Linear, Paving	Onsite truck	0.00000	0.00000	HHDT

Site Preparation	Worker	50.0000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00000	10.2000	HHDT,MHDT
Site Preparation	Hauling	8.00000	20.0000	HHDT
Site Preparation	Onsite truck	2.00000	2.00000	HHDT
Grading	Worker	50.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	0.00000	10.2000	HHDT,MHDT
Grading	Hauling	20.0000	20.0000	HHDT
Grading	Onsite truck	2.00000	2.00000	HHDT
Building Construction	Worker	500.000	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	80.0000	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	0.00000	0.00000	HHDT
Paving	Worker	80.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	8.00000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	0.00000	0.00000	HHDT
Architectural Coating	Worker	80.0000	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	4.00000	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	2.00000	1.000000	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00000	10.2000	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	4.00000	20.0000	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	2.00000	1.000000	HHDT
Linear, Grading & Excavation	Worker	40.0000	18.5000	LDA,LDT1,LDT2

Linear, Grading & Excavation	Vendor	4.00000	10.2000	HHDT,MHDT
Linear, Grading & Excavation	Hauling	20.0000	20.0000	HHDT
Linear, Grading & Excavation	Onsite truck	2.00000	2.00000	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Worker	50.0000	18.5000	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	8.00000	10.2000	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00000	20.0000	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	2.00000	1.000000	HHDT
Linear, Paving	Worker	20.0000	18.5000	LDA,LDT1,LDT2
Linear, Paving	Vendor	4.00000	10.2000	HHDT,MHDT
Linear, Paving	Hauling	0.00000	20.0000	HHDT
Linear, Paving	Onsite truck	0.00000	0.00000	HHDT
Site Preparation	Worker	50.0000	18.5000	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00000	10.2000	HHDT,MHDT
Site Preparation	Hauling	8.00000	20.0000	HHDT
Site Preparation	Onsite truck	2.00000	2.00000	HHDT
Grading	Worker	50.0000	18.5000	LDA,LDT1,LDT2
Grading	Vendor	0.00000	10.2000	HHDT,MHDT
Grading	Hauling	20.0000	20.0000	HHDT
Grading	Onsite truck	2.00000	2.00000	HHDT
Building Construction	Worker	500.000	18.5000	LDA,LDT1,LDT2
Building Construction	Vendor	80.0000	10.2000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	0.00000	0.00000	HHDT
Paving	Worker	80.0000	18.5000	LDA,LDT1,LDT2
Paving	Vendor	8.00000	10.2000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT

Paving	Onsite truck	0.00000	0.00000	HHDT
Architectural Coating	Worker	80.0000	18.5000	LDA,LDT1,LDT2
Architectural Coating	Vendor	4.00000	10.2000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	2.00000	1.000000	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	3,451,572	1,150,524	1,279,470	426,490	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	—	—	9.00000	0.00000	0.00000
Linear, Grading & Excavation	—	—	9.00000	0.00000	0.00000
Linear, Drainage, Utilities, & Sub-Grade	—	—	9.00000	0.00000	0.00000
Site Preparation	—	—	1,890.00	0.00000	0.00000

Grading	—	—	5,670.00	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	9.00000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Apartments Low Rise	—	0%
Paving	Road Construction	9.00000	100%
Paving	Parking Lot	0.00000	100%
Paving	Strip Mall	0.00000	0%
Paving	Fast Food Restaurant w/o Drive Thru	0.00000	0%
Paving	City Park	0.00000	0%
Paving	Industrial Park	0.00000	0%
Paving	General Office Building	0.00000	0%
Paving	Hotel	0.00000	0%
Paving	Regional Shopping Center	0.00000	0%
Paving	City Park	0.00000	0%
Paving	Library	0.00000	0%
Paving	Other Non-Asphalt Surfaces	0.00000	0%
Paving	General Heavy Industry	0.00000	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O

2028	0.00000	453.209	0.03300	0.00400
2029	0.00000	453.209	0.03300	0.00400
2030	0.00000	453.209	0.03300	0.00400
2031	0.00000	453.209	0.03300	0.00400
2032	0.00000	453.209	0.03300	0.00400
2033	0.00000	453.209	0.03300	0.00400
2034	0.00000	453.209	0.03300	0.00400
2035	0.00000	453.209	0.03300	0.00400
2036	0.00000	453.209	0.03300	0.00400
2037	0.00000	453.209	0.03300	0.00400
2038	0.00000	453.209	0.03300	0.00400
2039	0.00000	453.209	0.03300	0.00400
2040	0.00000	453.209	0.03300	0.00400
2041	0.00000	453.209	0.03300	0.00400
2042	0.00000	453.209	0.03300	0.00400

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	8,170.43	8,170.43	8,170.43	2,982,207	48,512.7	48,512.7	48,512.7	17,707,137
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Strip Mall	2,620.45	2,620.45	2,620.45	956,465	18,096.3	18,096.3	18,096.3	6,605,147
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Industrial Park	1,183.75	1,183.75	1,183.75	432,067	8,174.70	8,174.70	8,174.70	2,983,766

General Office Building	735.722	735.722	735.722	268,538	5,080.74	5,080.74	5,080.74	1,854,470
Hotel	1,248.77	1,248.77	1,248.77	455,800	8,623.73	8,623.73	8,623.73	3,147,660
Regional Shopping Center	1,746.67	1,746.67	1,746.67	637,535	5,614.28	6,273.08	6,273.08	2,117,917
City Park	2,659.64	2,659.64	2,659.64	970,770	18,366.9	18,366.9	18,366.9	6,703,932
Library	911.190	911.190	911.190	332,584	6,292.49	6,292.49	6,292.49	2,296,759
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Heavy Industry	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	8,170.43	8,170.43	8,170.43	2,982,207	48,512.7	48,512.7	48,512.7	17,707,137
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Strip Mall	2,620.45	2,620.45	2,620.45	956,465	18,096.3	18,096.3	18,096.3	6,605,147
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Industrial Park	1,183.75	1,183.75	1,183.75	432,067	8,174.70	8,174.70	8,174.70	2,983,766
General Office Building	735.722	735.722	735.722	268,538	5,080.74	5,080.74	5,080.74	1,854,470
Hotel	1,248.77	1,248.77	1,248.77	455,800	8,623.73	8,623.73	8,623.73	3,147,660
Regional Shopping Center	1,746.67	1,746.67	1,746.67	637,535	5,614.28	6,273.08	6,273.08	2,117,917
City Park	2,659.64	2,659.64	2,659.64	970,770	18,366.9	18,366.9	18,366.9	6,703,932
Library	911.190	911.190	911.190	332,584	6,292.49	6,292.49	6,292.49	2,296,759
Other Non-Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

General Heavy Industry	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Apartments Low Rise	Wood Fireplaces	0	0
Apartments Low Rise	Gas Fireplaces	0	0
Apartments Low Rise	Propane Fireplaces	0	0
Apartments Low Rise	Electric Fireplaces	0	0
Apartments Low Rise	No Fireplaces	0	0
Apartments Low Rise	Conventional Wood Stoves	0	0
Apartments Low Rise	Catalytic Wood Stoves	0	0
Apartments Low Rise	Non-Catalytic Wood Stoves	0	0
Apartments Low Rise	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0
Strip Mall	Wood Fireplaces	0	0
Strip Mall	Gas Fireplaces	0	0
Strip Mall	Propane Fireplaces	0	0
Strip Mall	Electric Fireplaces	0	0

Strip Mall	No Fireplaces	0	0
Strip Mall	Conventional Wood Stoves	0	0
Strip Mall	Catalytic Wood Stoves	0	0
Strip Mall	Non-Catalytic Wood Stoves	0	0
Strip Mall	Pellet Wood Stoves	0	0
Fast Food Restaurant w/o Drive Thru	Wood Fireplaces	0	0
Fast Food Restaurant w/o Drive Thru	Gas Fireplaces	0	0
Fast Food Restaurant w/o Drive Thru	Propane Fireplaces	0	0
Fast Food Restaurant w/o Drive Thru	Electric Fireplaces	0	0
Fast Food Restaurant w/o Drive Thru	No Fireplaces	0	0
Fast Food Restaurant w/o Drive Thru	Conventional Wood Stoves	0	0
Fast Food Restaurant w/o Drive Thru	Catalytic Wood Stoves	0	0
Fast Food Restaurant w/o Drive Thru	Non-Catalytic Wood Stoves	0	0
Fast Food Restaurant w/o Drive Thru	Pellet Wood Stoves	0	0
City Park	Wood Fireplaces	0	0
City Park	Gas Fireplaces	0	0
City Park	Propane Fireplaces	0	0
City Park	Electric Fireplaces	0	0
City Park	No Fireplaces	0	0
City Park	Conventional Wood Stoves	0	0
City Park	Catalytic Wood Stoves	0	0
City Park	Non-Catalytic Wood Stoves	0	0
City Park	Pellet Wood Stoves	0	0
Industrial Park	Wood Fireplaces	0	0
Industrial Park	Gas Fireplaces	0	0
Industrial Park	Propane Fireplaces	0	0
Industrial Park	Electric Fireplaces	0	0
Industrial Park	No Fireplaces	0	0

Industrial Park	Conventional Wood Stoves	0	0
Industrial Park	Catalytic Wood Stoves	0	0
Industrial Park	Non-Catalytic Wood Stoves	0	0
Industrial Park	Pellet Wood Stoves	0	0
General Office Building	Wood Fireplaces	0	0
General Office Building	Gas Fireplaces	0	0
General Office Building	Propane Fireplaces	0	0
General Office Building	Electric Fireplaces	0	0
General Office Building	No Fireplaces	0	0
General Office Building	Conventional Wood Stoves	0	0
General Office Building	Catalytic Wood Stoves	0	0
General Office Building	Non-Catalytic Wood Stoves	0	0
General Office Building	Pellet Wood Stoves	0	0
Hotel	Wood Fireplaces	0	0
Hotel	Gas Fireplaces	0	0
Hotel	Propane Fireplaces	0	0
Hotel	Electric Fireplaces	0	0
Hotel	No Fireplaces	0	0
Hotel	Conventional Wood Stoves	0	0
Hotel	Catalytic Wood Stoves	0	0
Hotel	Non-Catalytic Wood Stoves	0	0
Hotel	Pellet Wood Stoves	0	0
Regional Shopping Center	Wood Fireplaces	0	0
Regional Shopping Center	Gas Fireplaces	0	0
Regional Shopping Center	Propane Fireplaces	0	0
Regional Shopping Center	Electric Fireplaces	0	0
Regional Shopping Center	No Fireplaces	0	0
Regional Shopping Center	Conventional Wood Stoves	0	0

Regional Shopping Center	Catalytic Wood Stoves	0	0
Regional Shopping Center	Non-Catalytic Wood Stoves	0	0
Regional Shopping Center	Pellet Wood Stoves	0	0
City Park	Wood Fireplaces	0	0
City Park	Gas Fireplaces	0	0
City Park	Propane Fireplaces	0	0
City Park	Electric Fireplaces	0	0
City Park	No Fireplaces	0	0
City Park	Conventional Wood Stoves	0	0
City Park	Catalytic Wood Stoves	0	0
City Park	Non-Catalytic Wood Stoves	0	0
City Park	Pellet Wood Stoves	0	0
Library	Wood Fireplaces	0	0
Library	Gas Fireplaces	0	0
Library	Propane Fireplaces	0	0
Library	Electric Fireplaces	0	0
Library	No Fireplaces	0	0
Library	Conventional Wood Stoves	0	0
Library	Catalytic Wood Stoves	0	0
Library	Non-Catalytic Wood Stoves	0	0
Library	Pellet Wood Stoves	0	0
Other Non-Asphalt Surfaces	Wood Fireplaces	0	0
Other Non-Asphalt Surfaces	Gas Fireplaces	0	0
Other Non-Asphalt Surfaces	Propane Fireplaces	0	0
Other Non-Asphalt Surfaces	Electric Fireplaces	0	0
Other Non-Asphalt Surfaces	No Fireplaces	0	0
Other Non-Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Non-Asphalt Surfaces	Catalytic Wood Stoves	0	0

Other Non-Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Non-Asphalt Surfaces	Pellet Wood Stoves	0	0
General Heavy Industry	Wood Fireplaces	0	0
General Heavy Industry	Gas Fireplaces	0	0
General Heavy Industry	Propane Fireplaces	0	0
General Heavy Industry	Electric Fireplaces	0	0
General Heavy Industry	No Fireplaces	0	0
General Heavy Industry	Conventional Wood Stoves	0	0
General Heavy Industry	Catalytic Wood Stoves	0	0
General Heavy Industry	Non-Catalytic Wood Stoves	0	0
General Heavy Industry	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
3,451,572	1,150,524	1,279,470	426,490	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	5,755,312	453.209	0.0330	0.0040	36,409,630
Parking Lot	0.00000	453.209	0.0330	0.0040	0.00000
Strip Mall	328,566	453.209	0.0330	0.0040	162,497
Fast Food Restaurant w/o Drive Thru	227,991	453.209	0.0330	0.0040	663,107
City Park	0.00000	453.209	0.0330	0.0040	0.00000
Industrial Park	4,061,831	453.209	0.0330	0.0040	5,123,424
General Office Building	1,592,875	453.209	0.0330	0.0040	2,009,186
Hotel	4,071,255	453.209	0.0330	0.0040	8,436,927
Regional Shopping Center	298,696	453.209	0.0330	0.0040	147,724
City Park	0.00000	453.209	0.0330	0.0040	0.00000
Library	137,545	453.209	0.0330	0.0040	501,778
Other Non-Asphalt Surfaces	0.00000	453.209	0.0330	0.0040	0.00000
General Heavy Industry	632,511	453.209	0.0330	0.0040	2,307,473

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	5,757,617	453.209	0.0330	0.0040	0.00000
Parking Lot	0.00000	453.209	0.0330	0.0040	0.00000
Strip Mall	328,566	453.209	0.0330	0.0040	162,497
Fast Food Restaurant w/o Drive Thru	227,991	453.209	0.0330	0.0040	663,107
City Park	0.00000	453.209	0.0330	0.0040	0.00000

Industrial Park	4,061,831	453.209	0.0330	0.0040	5,123,424
General Office Building	1,592,875	453.209	0.0330	0.0040	2,009,186
Hotel	4,071,255	453.209	0.0330	0.0040	8,436,927
Regional Shopping Center	298,696	453.209	0.0330	0.0040	147,724
City Park	0.00000	453.209	0.0330	0.0040	0.00000
Library	137,545	453.209	0.0330	0.0040	501,778
Other Non-Asphalt Surfaces	0.00000	453.209	0.0330	0.0040	0.00000
General Heavy Industry	632,511	453.209	0.0330	0.0040	2,307,473

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	561,795,262	38,905,350
Parking Lot	0.00000	0.00000
Strip Mall	0.00000	0.00000
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000
City Park	0.00000	0.00000
Industrial Park	0.00000	0.00000
General Office Building	0.00000	0.00000
Hotel	0.00000	0.00000
Regional Shopping Center	0.00000	0.00000
City Park	0.00000	0.00000
Library	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
General Heavy Industry	0.00000	0.00000

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	561,795,262	38,905,350
Parking Lot	0.00000	0.00000
Strip Mall	0.00000	0.00000
Fast Food Restaurant w/o Drive Thru	0.00000	0.00000
City Park	0.00000	0.00000
Industrial Park	0.00000	0.00000
General Office Building	0.00000	0.00000
Hotel	0.00000	0.00000
Regional Shopping Center	0.00000	0.00000
City Park	0.00000	0.00000
Library	0.00000	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
General Heavy Industry	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	1,201.32	0.00000
Parking Lot	0.00000	0.00000
Strip Mall	34.6500	0.00000
Fast Food Restaurant w/o Drive Thru	80.6324	0.00000
City Park	0.00987	0.00000
Industrial Park	316.200	0.00000
General Office Building	93.0000	0.00000
Hotel	131.400	0.00000
Regional Shopping Center	31.5000	0.00000

City Park	1.23840	0.00000
Library	13.0770	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
General Heavy Industry	80.9720	0.00000

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	1,201.32	0.00000
Parking Lot	0.00000	0.00000
Strip Mall	34.6500	0.00000
Fast Food Restaurant w/o Drive Thru	80.6324	0.00000
City Park	0.00987	0.00000
Industrial Park	316.200	0.00000
General Office Building	93.0000	0.00000
Hotel	131.400	0.00000
Regional Shopping Center	31.5000	0.00000
City Park	1.23840	0.00000
Library	13.0770	0.00000
Other Non-Asphalt Surfaces	0.00000	0.00000
General Heavy Industry	80.9720	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000

Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
Fast Food Restaurant w/o Drive Thru	Household refrigerators and/or freezers	R-134a	1,430.00	0.00000	0.60000	0.00000	1.000000
Fast Food Restaurant w/o Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088.00	1.80000	4.00000	4.00000	18.0000
Fast Food Restaurant w/o Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Hotel	Household refrigerators and/or freezers	R-134a	1,430.00	0.00000	0.60000	0.00000	1.000000
Hotel	Other commercial A/C and heat pumps	R-410A	2,088.00	1.80000	4.00000	4.00000	18.0000
Hotel	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000

Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Library	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Library	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Library	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.00004	1.000000	0.00000	1.000000
Library	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000

5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000

Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
Fast Food Restaurant w/o Drive Thru	Household refrigerators and/or freezers	R-134a	1,430.00	0.00000	0.60000	0.00000	1.000000
Fast Food Restaurant w/o Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088.00	1.80000	4.00000	4.00000	18.0000
Fast Food Restaurant w/o Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Hotel	Household refrigerators and/or freezers	R-134a	1,430.00	0.00000	0.60000	0.00000	1.000000
Hotel	Other commercial A/C and heat pumps	R-410A	2,088.00	1.80000	4.00000	4.00000	18.0000
Hotel	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Library	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Library	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Library	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.00004	1.000000	0.00000	1.000000
Library	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	7.60000	annual days of extreme heat
Extreme Precipitation	5.70000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00000	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	51.8979
AQ-PM	91.1637

AQ-DPM	99.4524
Drinking Water	92.5315
Lead Risk Housing	10.0945
Pesticides	29.4138
Toxic Releases	79.8450
Traffic	80.4250
Effect Indicators	—
CleanUp Sites	70.3247
Groundwater	52.5320
Haz Waste Facilities/Generators	86.7505
Impaired Water Bodies	66.7367
Solid Waste	99.3814
Sensitive Population	—
Asthma	53.3524
Cardio-vascular	18.5194
Low Birth Weights	95.1629
Socioeconomic Factor Indicators	—
Education	66.0972
Housing	3.42205
Linguistic	99.6075
Poverty	85.3392
Unemployment	36.4394

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	21.21134351

Employed	98.98626973
Median HI	0.153984345
Education	—
Bachelor's or higher	79.46875401
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	0.795585782
Active commuting	95.88091877
Social	—
2-parent households	99.56371102
Voting	12.80636469
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	99.84601566
Supermarket access	82.93340177
Tree canopy	23.04632362
Housing	—
Homeownership	0.153984345
Housing habitability	32.29821635
Low-inc homeowner severe housing cost burden	30.68138073
Low-inc renter severe housing cost burden	93.4813294
Uncrowded housing	36.78942641
Health Outcomes	—
Insured adults	60.00256641
Arthritis	3.8
Asthma ER Admissions	50.3

High Blood Pressure	1.3
Cancer (excluding skin)	8.6
Asthma	96.9
Coronary Heart Disease	1.8
Chronic Obstructive Pulmonary Disease	25.1
Diagnosed Diabetes	1.6
Life Expectancy at Birth	98.5
Cognitively Disabled	32.0
Physically Disabled	1.3
Heart Attack ER Admissions	97.4
Mental Health Not Good	84.7
Chronic Kidney Disease	2.1
Obesity	95.7
Pedestrian Injuries	73.5
Physical Health Not Good	33.7
Stroke	2.1
Health Risk Behaviors	—
Binge Drinking	99.3
Current Smoker	84.4
No Leisure Time for Physical Activity	17.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	98.3
Elderly	0.5
English Speaking	0.3
Foreign-born	99.6
Outdoor Workers	98.2

Climate Change Adaptive Capacity	—
Impervious Surface Cover	7.2
Traffic Density	81.1
Traffic Access	87.4
Other Indices	—
Hardship	69.8
Other Decision Support	—
2016 Voting	17.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	88.0000
Healthy Places Index Score for Project Location (b)	57.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Project Details	Updated characteristics screen to match project specific characteristics
Characteristics: Utility Information	Updated to match project characteristics
Land Use	Adjusted land use information to match client provided land use summary
Construction: Construction Phases	Updated construction phasing to match project needs
Construction: Off-Road Equipment	Adjusted construction equipment to match project needs
Construction: Trips and VMT	Long-range estimates.
Operations: Vehicle Data	adjusted data to match TIAR
Operations: Hearths	Removed fireplaces and wood stoves, none proposed
Operations: Water and Waste Water	Adjust water usage based on preliminary engineering report waster system demand calculations

8.2. Project Characteristics

8.2.1. Project Details

Model Parameter	Default Value	New Value
Windspeed (m/s)	0.50000	15.0000
Precipitation (days)	16.8000	112.800
Electric Utility	Los Angeles Department of Water & Power	Statewide Average

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	100.500	60.0000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	48.7170	0.00000
Landscape Area	sq. ft	—	0.00000

Lot Area	acre	0.75758	16.2000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	0.16070	0.00000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	5.85399	23.4000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	2.29568	9.70000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	8.00000	8.00000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	0.68871	7.20000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	0.32599	3.40000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	4.84848	0.00000
Landscape Area	sq. ft	—	0.00000
Lot Area	acre	1.49908	1.50000
Landscape Area	sq. ft	—	0.00000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Site Preparation	Site Preparation	Start Date	3/9/2029	1/3/2028
Site Preparation	Site Preparation	End Date	8/24/2029	6/27/2042
Site Preparation	Site Preparation	Work Days per Phase	120.000	3,780.00
Grading	Grading	Start Date	8/25/2029	1/3/2028
Grading	Grading	End Date	11/2/2030	6/27/2042

Grading	Grading	Work Days per Phase	310.000	3,780.00
Building Construction	Building Construction	Start Date	11/3/2030	3/6/2028
Building Construction	Building Construction	End Date	9/21/2042	6/27/2042
Building Construction	Building Construction	Work Days per Phase	3,100.00	3,735.00
Paving	Paving	Start Date	9/22/2042	1/3/2028
Paving	Paving	End Date	7/27/2043	6/27/2042
Paving	Paving	Work Days per Phase	220.000	3,780.00
Architectural Coating	Architectural Coating	Start Date	7/28/2043	1/1/2029
Architectural Coating	Architectural Coating	End Date	5/31/2044	6/27/2042
Architectural Coating	Architectural Coating	Work Days per Phase	220.000	3,520.00

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Linear, Grading & Excavation	Excavators	Number per Day	3.00000	1.000000
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Number per Day	2.00000	1.000000
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Number per Day	2.00000	1.000000
Linear, Paving	Rollers	Number per Day	3.00000	1.000000
Site Preparation	Rubber Tired Dozers	Number per Day	3.00000	1.000000
Site Preparation	Tractors/Loaders/Backhoes	Number per Day	4.00000	2.00000
Building Construction	Forklifts	Number per Day	3.00000	1.000000
Building Construction	Welders	Number per Day	1.000000	2.00000
Paving	Pavers	Number per Day	2.00000	1.000000
Paving	Rollers	Number per Day	2.00000	1.000000
Architectural Coating	Air Compressors	Number per Day	1.000000	2.00000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value

Linear, Grubbing & Land Clearing	Worker	One-Way Trips per Day	10.00000	20.0000
Linear, Grubbing & Land Clearing	Hauling	One-Way Trips per Day	0.00000	4.00000
Linear, Grading & Excavation	Worker	One-Way Trips per Day	10.00000	40.0000
Linear, Grading & Excavation	Vendor	One-Way Trips per Day	1.000000	4.00000
Linear, Grading & Excavation	Hauling	One-Way Trips per Day	0.00000	20.0000
Linear, Drainage, Utilities, & Sub-Grade	Worker	One-Way Trips per Day	15.0000	50.0000
Linear, Drainage, Utilities, & Sub-Grade	Vendor	One-Way Trips per Day	0.00000	8.00000
Linear, Paving	Worker	One-Way Trips per Day	7.50000	20.0000
Linear, Paving	Vendor	One-Way Trips per Day	0.00000	4.00000
Site Preparation	Worker	One-Way Trips per Day	12.5000	50.0000
Site Preparation	Hauling	One-Way Trips per Day	0.00000	8.00000
Grading	Worker	One-Way Trips per Day	25.0000	50.0000
Grading	Hauling	One-Way Trips per Day	0.00000	20.0000
Building Construction	Worker	One-Way Trips per Day	1,499.71	500.000
Building Construction	Vendor	One-Way Trips per Day	311.699	80.0000
Paving	Worker	One-Way Trips per Day	10.00000	80.0000
Architectural Coating	Worker	One-Way Trips per Day	299.942	80.0000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Apartments Low Rise	Weekday Trip Rate	size/day	7.32000	5.08111
Apartments Low Rise	Saturday Trip Rate	size/day	8.14000	5.08111
Apartments Low Rise	Sunday Trip Rate	size/day	6.28000	5.08111

Apartments Low Rise	Res H-W Trip Length	miles	9.89132	7.00000
Apartments Low Rise	Res H-S Trip Length	miles	3.77767	5.30000
Apartments Low Rise	Res H-O Trip Length	miles	4.58143	5.80000
Apartments Low Rise	Res H-W Trip	%	38.2756	14.7501
Apartments Low Rise	Res H-S Trip	%	9.40525	7.88122
Apartments Low Rise	Res H-O Trip	%	52.3191	77.3687
Parking Lot	Non-Res H-W Trip Length	miles	12.7930	7.00000
Strip Mall	Weekday Trip Rate	size/day	44.3200	79.4076
Strip Mall	Saturday Trip Rate	size/day	42.0400	79.4076
Strip Mall	Sunday Trip Rate	size/day	20.4300	79.4076
Strip Mall	Non-Res H-W Trip Length	miles	12.7930	7.00000
Fast Food Restaurant w/o Drive Thru	Weekday Trip Rate	size/day	346.230	0.00000
Fast Food Restaurant w/o Drive Thru	Saturday Trip Rate	size/day	696.000	0.00000
Fast Food Restaurant w/o Drive Thru	Sunday Trip Rate	size/day	500.000	0.00000
Fast Food Restaurant w/o Drive Thru	Non-Res H-W Trip Length	miles	12.7930	7.00000
City Park	Weekday Trip Rate	size/day	0.78000	0.00000
City Park	Saturday Trip Rate	size/day	1.96000	0.00000
City Park	Sunday Trip Rate	size/day	2.19000	0.00000
City Park	Non-Res H-W Trip Length	miles	12.7930	7.00000
Industrial Park	Weekday Trip Rate	size/day	3.37000	4.64214
Industrial Park	Saturday Trip Rate	size/day	2.54000	4.64214
Industrial Park	Sunday Trip Rate	size/day	1.24000	4.64214
Industrial Park	Non-Res H-W Trip Length	miles	12.7930	7.00000
General Office Building	Weekday Trip Rate	size/day	9.74000	7.35722
General Office Building	Saturday Trip Rate	size/day	2.21000	7.35722
General Office Building	Sunday Trip Rate	size/day	0.70000	7.35722
General Office Building	Non-Res H-W Trip Length	miles	12.7930	7.00000
Hotel	Weekday Trip Rate	size/day	8.36000	5.20320

Hotel	Saturday Trip Rate	size/day	8.19000	5.20320
Hotel	Sunday Trip Rate	size/day	5.95000	5.20320
Hotel	Non-Res H-W Trip Length	miles	12.7930	7.00000
Regional Shopping Center	Weekday Trip Rate	size/day	37.7500	58.2224
Regional Shopping Center	Saturday Trip Rate	size/day	46.1200	58.2224
Regional Shopping Center	Sunday Trip Rate	size/day	21.1000	58.2224
Regional Shopping Center	Non-Res H-W Trip Length	miles	12.7930	7.00000
City Park	Weekday Trip Rate	size/day	0.78000	184.697
City Park	Saturday Trip Rate	size/day	1.96000	184.697
City Park	Sunday Trip Rate	size/day	2.19000	184.697
City Park	Non-Res H-W Trip Length	miles	12.7930	7.00000
Library	Weekday Trip Rate	size/day	72.0500	64.1683
Library	Saturday Trip Rate	size/day	80.0900	64.1683
Library	Sunday Trip Rate	size/day	42.0900	64.1683
Library	Non-Res H-W Trip Length	miles	12.7930	7.00000
Other Non-Asphalt Surfaces	Non-Res H-W Trip Length	miles	12.7930	7.00000
General Heavy Industry	Weekday Trip Rate	size/day	3.93000	0.00000
General Heavy Industry	Saturday Trip Rate	size/day	6.42000	0.00000
General Heavy Industry	Sunday Trip Rate	size/day	5.09000	0.00000
General Heavy Industry	Non-Res H-W Trip Length	miles	12.7930	7.00000

8.5.4. Water and Waste Water

Land Use	Model Parameter	Units	Default Value	New Value
Apartments Low Rise	Indoor Water	gal/year	59,328,808	561,795,262
Apartments Low Rise	Outdoor Water	gal/year	0.00000	38,905,350
Apartments Low Rise	Electricity Intensity Factor to Supply	kWh/Mgal	1,425.32	4,300.00
Apartments Low Rise	Electricity Intensity Factor to Treat	kWh/Mgal	747.732	0.00000

Apartments Low Rise	Electricity Intensity Factor to Distribute	kWh/Mgal	997.545	0.00000
Apartments Low Rise	Electricity Intensity Factor for Waste Treatment	kWh/Mgal	1,524.25	0.00000
Parking Lot	Electricity Intensity Factor to Supply	kWh/Mgal	1,425.32	4,300.00
Parking Lot	Electricity Intensity Factor to Treat	kWh/Mgal	747.732	0.00000
Parking Lot	Electricity Intensity Factor to Distribute	kWh/Mgal	997.545	0.00000
Parking Lot	Electricity Intensity Factor for Waste Treatment	kWh/Mgal	1,524.25	0.00000
Strip Mall	Indoor Water	gal/year	2,444,393	0.00000
Fast Food Restaurant w/o Drive Thru	Indoor Water	gal/year	2,124,736	0.00000
Industrial Park	Indoor Water	gal/year	58,968,750	0.00000
General Office Building	Indoor Water	gal/year	17,773,375	0.00000
Hotel	Indoor Water	gal/year	6,088,025	0.00000
Regional Shopping Center	Indoor Water	gal/year	2,222,176	0.00000
Library	Indoor Water	gal/year	444,302	0.00000
General Heavy Industry	Indoor Water	gal/year	15,100,625	0.00000